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Persons desirous to invest their capital in mining speculations, will find this work a very useful guide. —*Warwick Advertiser*.
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A very valuable book. —*Cornwall Gazette*.
All who have invested, or intend to invest, in mines should peruse this able work. We believe a more useful publication, or one more to be depended on, cannot be found. —*Plymouth Herald*.
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Mr. Murchison will be a safe and trustworthy guide, so far as British Mines are concerned. —*Bath Express*.
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(Extract from the *Lancet*, July 10, 1858.)

"THE WINE OF SOUTH AFRICA.—We have visited Mr. Denman's stores, selected in all eleven samples of wine, and have subjected them to careful analysis. Our examination has extended to an estimation of their bouquet and flavour, their acidity and sweetness, the amount of wine stone, the strength in alcohol, and particularly to their purity. We have to state, that these wines, though branded to a much less extent than Sherris, are yet, on the average, nearly as strong; that they are pure, wholesome, and perfectly free from adulteration; indeed, considering the low price at which they are sold, their quality is remarkable."
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MINING IN IRELAND—ROUGH NOTES.—No. IV.

Leaving the Schull Bay Mines, we ascended the hill to the east, from which there is a very fine view of Schull Harbour, Long Island Sound, and Roaring Water Bay, which is studded with islands, and may be well designated the "Bay of Islands." In the distance is the ancient town, but now a small village, of Baltimore, which in former times returned two members to the Irish Parliament, and from which the City of Baltimore, in America, derived its name. We find the strongholds of the O'Driscoll's and McCarrie's still in a good state of preservation along the sea-coast; and Killoe, Rosbrin, and White Castles are objects of great interest. Our pathway to the east was near the sea, and though not one of the most even, it being diversified with numerous bogs and rocks, yet, upon the whole, it was pleasant and interesting. About two miles from Schull Bay we came unexpectedly upon a very pretty spot—Dreenatra, which, with its splendid new mansion, gardens, grounds, plantations, &c., presents a pleasing contrast to the surrounding wild and rocky district. We observed strong traces of copper ore in this property, and a place was pointed out to us where 60 tons of that mineral were quarried open from the surface. This estate was recently purchased by an English gentleman, Dr. Hicks, under the Incumbered Estates Court. Passing on from Dreenatra we soon reached Rosbrin, Ballycunnick, Cappagh, &c. These townlands form part of the manor of Rosbrin, and were formerly the property of Lord Audley. Horse Island, which is about half-a-mile south of the main land, is also part of the same property. It was at Cappagh and Horse Island, it appears, that the copper mines were worked some thirty years ago by the celebrated West Cork Mining Company. Large sums of money were expended by this company on a slate quarry near Audley Cove; but from all accounts we learn that neither the mines nor the slate quarries added much to the wealth of the shareholders; and if our information be correct, which, however, we have no reason to question or doubt, it would have been matter for surprise rather than otherwise if those speculations had turned to profitable account, for, like many companies of modern date, the prevailing principle seemed to be to make places for officers, and, in fact, to make use of a company's expression, there were more officers than soldiers. On travelling through this district we observed some iron ore, known in the locality as "bog iron." It appears that the West Cork Mining Company shipped some cargoes of this iron ore to London as manganese, but when it arrived it was found to be unsaleable.

Lord Audley's estate, mines, and minerals, were a short time since sold under the Incumbered Estates Court, and purchased by an English gentleman, Mr. T. S. Cave, who, we were informed, was some years ago largely interested in mines in Cornwall; and since Mr. Cave became the proprietor some of the mines have been re-augmented—Horse Island and Ballycunnick. We find, however, that the operations at Horse Island were continued but for a short period, and as there are various reasons assigned for the works being discontinued, and which, no doubt, will in due time be explained, we pass on to notice in our way, Ballycunnick Mine. This mine is near the harbour of Rosbrin, and is well situated for shipping ores, landing coals, and other supplies; a Cornish pumping-engine has been erected, and offices and other necessary surface erections. Some cargoes of ore of good quality have been shipped to Swansea; and another cargo, it appears, is ready for market. This mine, we were informed, is worked by a single gentleman, resident in London, and we wish him every success—it is, however, a weighty undertaking. It appears, too, as if some of the principles of the West Cork Mining Company, as regards management, still cling to this mine, and the complaint of some officers that soldiers would be just as applicable now as formerly. As our informant stated that the salaries of the staff amount to upwards of 60l. per month, while the salaries of 30 miners, about the number employed, would not exceed 90l. per month; we imagine, therefore, that it should be a rich concern to support so costly an administration of affairs. The question of manganese, otherwise bog iron, has been again revived, and we saw considerable quantities of that mineral collected in heaps by the road side for shipment. A gentleman, Prof. Bray, Government Inspector of Mines (?), from London, has been in the district, and has been engaged in examining the mines, and recommending the large quantity of bog iron was collected as manganese; fortunately, however, a gentleman well acquainted with these substances saw it in time to prevent its being shipped, and consequently any further waste of money. The learned Professor made, it appears, various other discoveries of equal importance and value.

Those who are well acquainted with the Ballycunnick Mine say it ought to be a good concern; and, from what we have seen, we agree in the opinion. A new road has been made from Cappagh to the village of Ballydeob, a distance of four miles; this village lies in a hollow; it is a dirty place, and has a dilapidated appearance; it is ten miles from Ballycunnick, and is a very poor village. It is said that the mines have been worked since the late manor for mining companies, a mine was opened near the village of Ballydeob by the South Cork Mining Company. Some shipments of ore were made, but whether owing to want of capital or any other cause we could not learn, the concern was, after an inefficient trial, abandoned; the formation about the mine seems to be strongly mineralised.

Proceeding from Ballydeob to within a mile of Schull, we turned off to the north towards the gap of Mount Gabriel. The view from the gap is most extensive and magnificent. Towards the north, the mountains around Pantry, and far away in the distance the Kerry Mountains; while to the south is Cape Clear, and the broad expanse of the Atlantic Ocean. Lovers of wild and alpine scenery may from this spot enjoy a treat seldom to be met with. A little beyond the gap we were much pleased with our visit to the barytes works which are there established; we found extensive and perfect machinery erected and in operation for the reduction and manufacture of the barytes from its crude state; and from the fact of the works being conducted by one of the first practical chemists of the day, we see no reason to doubt but it will shortly become of great importance to the locality, as well as a source of profit to the proprietors.

Although bog iron will not act as a substitute for manganese, there are iron mines in the county of Cork; for we learn that, while the county was well wooded, iron-works were carried on to a considerable extent. The East India Iron Company had iron-works in 1612, and paid 7000l. for a tract of wood for their furnaces. About the year 1632 the Earl of Cork had in his various blemishes 1000 tons of bar and 20,000 tons of pig-iron, besides 200 tons drawn out, and faggotted into rods. Bar-iron at that time was worth 18l. per ton.

The distance from the Mizen Head to the Audley Mines is about 20 miles, and within that continuous range are the Brow Head, Crookhaven, Lyncom, Schull Bay, and Dunatragh Mines. This day-state formation crop out in localities that have a uniform direction from north-north-east to south-south-west, and a prevalent dip to the south-east. Many of the mineral veins are found along the line of fissure of this rock, and where not intersected by cross veins or elvan dykes they are seldom productive; whereas at the points of intersection by oblique or cross veins and elvan formations we have noticed, generally speaking, large deposits of ore. We observed also while travelling over this district large quantities of the carbonate of copper; in many instances the slate rocks appear to be thoroughly impregnated with it, but the gangue, or veinstone, being heavier than the carbonate, has, for the most part, been found impracticable to cause a separation without the loss of the greatest part of the copper. The science, however, of chemistry will overcome this difficulty, and commence a new era in the method of separating ores and metallic substances, and start from the point where practical knowledge has been obliged to stand still. (To be continued.)

THE COAL TRADE OF SOUTHERN FRANCE.—The Carmaux Mines and Railway Company has just issued a report, which shows that the coal trade in Southern France since the beginning of the last half-year has been in a very depressed state. To such an extent has this affected this particular colliery, that they have been compelled to reduce by about one-third the quantity of 11,000 tons of coal raised monthly, and to limit their production to between 7000 and 8000 tons per month. The coal raised during the first six months of 1857 amounted to 11,475 tons, while for the first half-year of 1858 the amount was only 7257 tons. During the same period of 1857 the gross proceeds of sales amounted to 22,205l., while in that of 1858 they amounted only to 14,445l. Although this considerable decrease had taken place in their receipts, the reduction in the working expenses had brought up the net proceeds to an average amount. The charges incidental to the railway for interest and sinking fund had this year burdened the profits of the mine, the more especially as during the first half the railway was not in complete working order. This company, since it has been under its present efficient management, has had many obstacles wherewith to contend. Not only has the commercial crisis adversely affected this corporation, but a change of management in the staff of the mines and railways had been entered into; and the imperfect state of the accounts, and the winding-up of litigation, had presented difficulties which tended to retard the full development of the works. By its energetic management, however, the working of the mines has experienced incalculable improvement. For these immense results no small need of praise is due to the zeal, intelligence, and skill of Mr. Letellier, the new director of the mines. This tribute is the more necessary, inasmuch as malicious rumours, tending to throw discredit on the undertaking, have been circulated, and gained some amount of credence in the minds of many shareholders. The coal fields around Carmaux, the estimates made by the engineers; and those who have successfully studied their position, and other matters connected with the term, their wealth almost illimitable. With regard to the competition of coals arriving by new routes, it is thought that this will not be a matter of such serious import as had been supposed. This opinion is at the present moment being practically confirmed; for, while their competitors had stocks at Toulouse and Montauban, the company's sales were slightly increasing, and contracts were being renewed, attributable doubtless to the peculiar qualities the coal possesses, and its special adaptability to smiths' work, metallurgical, coke, and gas purposes. Although the means of communication by the River Tarn were very defective, they enabled satisfactory results to hold their ground, and the company would be justified in declaring a dividend, but it is their intention to recommend that the whole or part of this year's dividend be carried to the reserve fund, in order that measures may be taken which are deemed advisable for the interests of the company. In virtue of the authority vested in March last to issue a new loan of 80,000l., to reconstitute a working capital, exhausted by the expenses attendant upon the completion of the railway works, an issue of a first series of 2000 bonds had been made, representing a sum of 21,600l., of which only 17,280l. had been subscribed for. The enterprise was now free from all the embarrassments by which it was fettered at the beginning. The railway was now open with the greatest regularity for nearly six months without the slightest accident, and the causes of extraordinary expenses had ceased. As business resumes its wonted activity, and sales increase, the undertaking will again assume its progressive course of prosperity.

EAST INDIA COAL COMPANY.—Goponnathpore: We have had 13 working days during the past fortnight, in which time 8774 maunds of coal have been raised. The works at this place are all getting on very satisfactorily. —Tapei: The communication of the pump-shaft with the old mine was completed on the 25th. Since that time the water is rapidly decreasing. In the course of a week the whole mine will be free of water, and we shall be able to commence coal raising. About 1200 maunds of coal have been raised during the past fortnight. I have collected a large number of coal-cutters and other labourers here, and shall soon be able to raise coal largely. —Konostoria: About 1000 maunds of coal have been raised here; the coal is of inferior quality, and very much mixed with water. I have stopped the raising of the coal here for the present. —Kash: The shaft here is now down to the coal, at a depth of 67 ft.; the water in this shaft is at present being taken out by the gin erected here. Unless a pump is put down I fear we shall not be able to keep down the water. I am making arrangements to sink a second shaft in the course of a few days. —Kosta: At this place the quarrying is progressing satisfactorily. About 6000 maunds of coal have been quarried during the past fortnight. Numbers of coal-cutters are coming daily to settle on this property. —Kusnah: No work in progress here. —Tannakooly: No work in progress here. —Dusnah: The quarry contractor is excavating a large area of ground. He is making arrangements to take out the water from the quarry by means of "faroahs." —General Remarks: The droughty season delays the raising of coal here. I shall take advantage of these holidays, and take a tour of inspection through the properties of Kosta, Kusnah, and Tannakooly. The weather has been very wet and unfavourable for all outdoor work. This fortnight the quantity of coal raised at all the places is about 17,162 maunds, making in all 27,309 maunds for the month of September. I trust to be able to double this quantity after the poohah.—J. F. HARRISON, C. S. STATE.

A PEEP INTO A WELSH COAL MINE.

BY SEPTIMUS PIERCE.

Mining districts generally are situated in the most romantic and picturesque parts of the world. This is more particularly the case in "Wales," "England," and in the "Land of the Leek;" thus Wales and the border counties have ever been prominent as affording a harvest to mining operators, who, like moles, probe below the earth, and as a resort for the scenery who admire the surface only; mountain and valley are to be seen what the monstrous ironstone and coal fields are to the other; the one will present the sparkling of the lead or copper ore, the other the glistering of the deep veins of the hardy fern, and the bubbled torrent as it hurries on its course down the steep hill, yet from its length, about two miles, a great elevation is attained. We gained the summit of Carn-y-bwch, one of the lesser mountains of Wales, in the "Land of the Leek," now known as Offa's dyke, runs at the foot of it. Carn-y-bwch is situated about three miles from the pleasant Anglo-Welsh town of Oswestry, on Holyhead road, and about twenty miles from Shrewsbury. Its surface is not extensive by having the course in the figure of an eight, it is used as a race ground by patrons of the turf of Oswestry and Llangollen. The situation of this mountain is effective for scenic beauty. From its summit on any moderately clear day numerous views may be seen: the plains of Shropshire only intercepted by the famed Wrekin, beyond the sight on one side, while the various mountains of eight different counties are visible on the other. The only view which the imagination would like to see is the "exceeding high mountain" on which our blessed Saviour dwelt in the temptation of Satan (Matt. c. iv. v. 8), for truly such a vast extent of country rarely be seen within such a view; towns, villages, castles, cottages, and farms, appear over the surface as daisies in a field, with here and there purling streams and sun gleaming from them, as though they were silver links to connect the whole. As we proceeded on our route, we observed volumes of smoke issuing as it were from the hill in the foreground. We had not gone far when we met a young girl, who, acceding, asked the distance to the mines. "Dim Saenag" was the reply. "O, how far!" she said. "The distance of the ancient Britons, a real descent of the original inhabitants of our envied isle, and giving utterance to *Dim Cymrag* I heard, a quarter of a mile walk brought us at once into the neighbourhood of a coal field. What a contrast! We have just passed the green and golden cornfields bordered with the trim hedge row of black and white thorn, with here and there a rose or blossom of woodbine peeping at heaven through the green leaves, then the arid yielding a dainty mate to the lowing cattle and the bleating lamb, then the side decked with azure harebell and blooming furze; there was the logged mule trail, and still upon nettles and sharp tufts of grass; all was bright, gay, was rural.

Here the scene is changed to engine-houses, lofty chimneys, sheds, stables, and a thousand other things apparently scattered about, rusty, dingy, black; and they might be, for the coke hills and chimneys were flaming with smoke, and as though they had been doing so for ages. The clanking of chains, the screeching of wheels, the waste steam blowing from the boiler-valve, and the echoes of the pit's mouth, form together a sight and sound that few can conceive or form an idea of.

As we examined the works, we could not but be forcibly struck with the appearance and exposure of all sorts of machinery in full work, wheels revolving, belts oscillating, ropes and chains being wound and unwound, pumps flowing with water, all, as it were, unheeded. Everything about a mine seems to be done for the sake of the mine, and nothing for show, so everything is wrought of the strongest material, but the roughest way man can put matter together. As the engines are never stopped for 24 hours in the week—that is, from six o'clock on Saturday to the same hour on Sabbath following, they are put to severe tests for labour, and which if damaged they may mean a loss of employment; they are, of course, constructed in the simplest and strongest manner, "no tackle" indeed is there about them, that they are often driven by a horse. Having viewed the miscellaneous works, we had some conversation with the "boss," which ultimately led to our descent to the "lower regions," the terms being used in the rate, having only to "stand something to drink." The miners are willing to do anything for strangers for a "wet." It was suggested that we should put on a "safety" which ultimately we had no reason to regret. With our "new garment" came a lot of the excitement of our situation. We could not keep away the thought, "should a rope break, or a wheel go wrong, what would become of us?" Fearing lest our descent should be a hazardous one, we directed our new friend, to jump into the "cage" just then about to descend; two or three miners did the same, and in a second the cage, like a mighty giant, lifted us all up about 4 or 5 ft., and held us dangling over the pit mouth; at the cry of "hold on" the engine was reversed, and we began our descent earnest. We certainly own there was a thrill, the "goose flesh" crept up our arms when we thought of the 85 fms. of space between us and—a sure footing. The descent was very slow, we had plenty of time to examine the shaft; it was strong enough, doubt, but we thought it rather "shaky;" the bricks had fallen away here and there, water was pouring through to no small extent. Having descended about 30 or 40 ft. the mouth of the pit or shaft began to decrease in size, and the rope by which we were held did the same, till having gone down about 60 fms., we could no longer discern either; we could, however, trace the rope or band by the light of the candle, which we had provided ourselves, until it appeared as fine as a spider's thread. Further we descended the less steady we go, the oscillations became greater, we were from side to side, and occasionally the cage catching against some projection, given whole a lift, far—very far—from pleasant to those unused to such treatment, and being made more than half the descent, we felt as we think a person might feel when in a hammock's coffin, a kind of suspension between heaven and earth—only not supported by ether, by magnetism, or gas, but by a cable. Still we continued to descend. The echo of voices are heard from below, reverberating gruffly. We have passed superficial crust of the earth, and bricks are no longer required for support—the shaft being cut through rock of "slaty shale," as the geologists have it, which is mostly stratum that covers coal. Now, the glimmer of light is visible, it becomes more distinct, not so black as you would imagine, come in view. 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KELLY BRAY MINING COMPANY

YOUNG CORNWALL.

ADVERTISING BROKERS.

GOVERNMENT SCHOOL OF MINES.

The subsequent lectures were on "Coal and Charcoal as Fuel," an ep

and these are continuous, and can be taken off. When above the melting point it burns with a luminous flame, and the oxide of zinc is formed. A specimen of this was shown when further burnt, being of a frangible texture, and of a conchoidal form. It undergoes no change when kept in a dry air at an ordinary temperature, but a pellicle is formed, the structure of which is so dense that it protects the subjacent zinc, and this is one of the reasons why it is so useful for roofing purposes, being entirely the reverse of iron, the oxide or rust of which materially deteriorates every year the metal. The composition of the rust of zinc gave five equivalents of oxide of zinc, four of carbonic acid, and eight of water. These observations were made on a roof at Munich, which had stood that atmosphere for 27 years, and the calculations made by Karsten were that this rust would stand for 247 years. Zinc shows no change in water with pure air, but when heated it decomposes water, and is then crystallised. The action depends upon its impurity; the greater the impurity the more the action. Strong sulphuric acids act upon it as it does upon copper; nitric acid likewise attacks it energetically. Zinc decomposes water with soda or potash, and a great dehydrating action is observed. Potassium carbonate with zinc, and a great deal of water, produces carbonic acid. Oxide of zinc is preserved in various ways; it does not blacken when exposed to the air, like lead, but does not so dense a body as that is. It is, however, used extensively as a pigment in the Potteries. The zinc of commerce is said to contain a certain amount of carbon; that was nothing, however, definite known on this point, and he should further allude to the subject when he came to the alloys of zinc. They would next look at sulphur and zinc.

calamine; this contains 53.83 per cent. of metal, and there was an anhydrous silice called Willemitte, that had the same composition, minus the water. The next ore

blende, so called from its deceitful appearance. It appears that many years ago, according to Bishop Watson's essays, much of this had been purchased in Derbyshire for gale

There is, in my opinion, nothing to be ashamed of in not having noticed the cross-course referred to when I was called upon to survey the property, as the district at that time was much less explored: but after Mr. Ennor had come to the settled opinion that

SIR,—I last week, in my tour through Cornwall, had to pass through Wadebridge where I found the quarrymen not a little alarmed on account of an ill-fated *alias* having

Turning again to G. Forester—who to me, however, is scarcely worth noticing, though his letter appears to have a little alarmed Mr. Lacy—I will only state, for public in-

MINING IN CORNWALL.

SIR,—I often have great pleasure in reading the numerous letters in your valuable *Journal*, and a desire to obtain further information on mining in Cornwall induces me

My knowledge of geology being limited, these statements of your correspondent puzzle me, especially when I glance at the physical appearances of this district (of the prairie).

...the amount of the ... for certain expenses ...

"WHAT WON'T MAKE TIN WILL TAKE TIN."

Here is another of these quaint sayings that have a double meaning, each of which has an equally forcible application. To the miner it is well known that in dressing tin ores it is necessary the stone should be so selected as, if possible, to allow no heavy waste, or other objectionable matter, known to experience only, to be mixed with it, as it will inevitably cause loss, not only of time and trouble, but will actually so contaminate the ore that separation is next to impossible; hence the peculiar origin of the sentence. But we see it may be applied with equal advantage to every-day life. If time and ability be not profitably employed, it may be depended on the reverse will be the fact.

"Satan finds some mischief still,
For idle hands do."

The application, it will thus be seen, is clothed under a homely guise, much better adapted to the understandings of the parties to whom they were addressed than more elaborate and polished lessons. These maxims also prove that the Cornish people, at the remote period of their introduction, entertained fine views of the utility of proverbs, for we see, in all instances, though they contain great wit, and frequently severe criticism, they invariably have a moral at the bottom. In this instance, the moral is distinctly seen by the Cornish miner, as well as its derivation from his daily occupation. It is a goodly motto; and it will be well for society generally, as for the parties to whom it is addressed, to remember that "What won't make tin will take tin."

GEORGE HENWOOD.

FOREIGN MINES.

ALTEN AND QUENANGEN MINES.—Estimated produce for Oct.:

Mines	Tons	Ore.	Per cent.	Copper.
Ralspas	35	.....	6	2.10
Old Mine	120	.....	5	6.00
United Mines	15	.....	6	0.90
Michell's	8	.....	5	0.40
Thomas's lode	6	.....	4	0.24
Quenavig lodes	15	.....	5	0.75
Quenangen	45	.....	10	4.50
Total	244	.....		14.89

RALSAP.—The driving over the 20 is still being continued on a small pile of rich ore. The slope over the 10 turns out more ore than usual from the clay-slate; the slope on the east side of this level contains ore enough to pay, though the ground is extremely difficult, being chiefly of reddish quartz. The slope near Monk's shaft and that under the shallow adit have not yet communicated; the lode here is tolerably large, and being in limestone is more likely to improve than any of the others. The quality of the ore from all the workings is now better than it has been for many months past. Old Mine: There has been this month but a considerable improvement in the slopes from No. 1 adit; the produce from this mine has been now high for four years. The sink is being continued below the slopes on a very fine lode 7 ft. wide, composed of calcareous quartz, and good stones of ore, leaving good ground for stopping on each side. No. 3 winze, on the side, is promising; a very slight rise of calcareous, with spots of pyrites and copper ore, is now forming on the side, and probably is, or will soon lead to, the lode. Sinks Nos. 1 and 3 are 80 fathoms apart, and a trial is going on between them, where the matrix, now of a character unfavourable to the accumulation of ore, will probably after a few fathoms sinking. United Mines and Michell's: Goodness of ore is being raised from the 10 in Woodell's, and from the back the north lode at Michell's a number of tributaries have collected sufficient quantity to encourage them to prosecute it to greater depth. —Thomas's Lode: The ore raised this month is from the new lode referred to in last report, but as there is at this spot no shelter for the workmen, they will return to the deeper workings on the original lode until next summer. —Quenavig Lodes: If the trials we are now making here continue as remunerative during the winter as they have done during the present month, we will probably, as soon as the weather permits, increase the number of workings; one of the lodes is 3 feet wide, very regular, and mixed with ore throughout.

QUENANGEN MINES.—The lode in the slope under the 10 is quite as rich as ever it was at a higher level, and this part of the mine will probably continue to yield considerable supplies of ore for years. The winze west from the slope under the 10 is now 3 fms. deep, the lode is increasing in size, being now about 3 ft. wide, containing about 2 tons of rich ore per fathom; the ground is tough to work, and there being a considerable feeder of water, the progress is somewhat slow. The lode in the 15 end east carries a fair rib of ore in the sole of the level, the driving not producing much. The cross-cut towards D lode is in easy ground, and advancing satisfactorily. The lode discovered and intersected by this cross-cut is being explored; it is now 3 feet wide, composed of greenstone, well mixed with yellow ore. This vein is only 3 fathoms south from lode E, and parallel to it; the dip at present is in an opposite direction, but is being probably come back to lode A at a greater depth. The snow is a foot deep round the mine, but as there is none in the valley, we have not yet been able to transport the ore by sledges.

NEW GRAND DUCHY OF BADEN.—S. Richards, Nov. 15: At Schindler Mine the lode in the engine-shaft is 5 feet wide, and worth 40¢ per fm. In the 34 north, and driving by the side of the lode, the ground still continues favourable. The lode cutting down behind this level is increasing in size, being now about 15 in. wide, and worth 25¢ per fm. The lode in the slopes in back of this level is 7 ft. wide, and worth about 25¢ per fm. The lode in the 34, south end, is without any change since last report; but the ground, which before was quite dry, is now letting out a little water, which may be considered a favourable indication. There is no alteration of importance in any other part of this mine. At Teufelsberg Mine, the lode in the different parts in operation at Lousien level is producing just as for some time past, being worth on the average from 7 to 8 cwt. of ore per fm. In Wilhelm's level the slopes are worth 5 cwt. of ore per fm.; and in Frederick's level 4 cwt. of ore per fm. At the smelting works, campaign 10 is finished; campaign 11 will be commenced to-morrow.

WILDBERG MINING COMPANY.—Z. Walls, Nov. 13: We have commenced to drive both east and west in the 10 lode in Beck's sink; the lode in the east driving will produce 2½ tons of silver-lead ore per lichter, and in the west driving 3½ tons per lichter. We have commenced driving the fork in the bottom of Michael's shaft, and shall commence driving east and west on the course of the lode in the 10 lode level on Monday next. The lode in No. 3 sink, on the Dornberg, is again improved. The middle drivings east and west in No. 2 sink continue in an ore lode. The slopes on the Erbsfelderzang lode are somewhat improved since last report, and I am glad to say we are tolerably well supplied with labourers, and shall no doubt continue so some time, as the winter is setting in, and there is but little work to be got with the farmers. The ore returns for the last month is 160 tons 3 cwt. of silver-lead ore at 51 1/2-10th per cent. produce, and 5½ cwt. of copper ore; this, I am sorry to say, is short of our estimate, but it is not owing to any falling off in the production of the mine, for had the number of miners which we had at the commencement of the month continued to work regularly our ore returns would have exceeded the 180 tons promised; however, the men are working now more regularly, and I hope our ore returns for the present month will equal 200 tons.

LUSTANIAN MINING COMPANY.—Nov. 6: Palhal Mine, Basto's Lode: The ground at Taylor's engine-shaft, sinking below the 38, is better for sinking through than it has been for some time past. The ground in the 38 cross-cut, driving south of Taylor's engine-shaft, is without alteration to notice since our last. The lode in the 38, driving west of Taylor's engine-shaft, is 4½ feet wide, composed of quartz, prill, flookan, mundic, and copper ore, worth 2 tons per fathom of the latter. The lode in the 38, driving east of the same shaft, is 3 ft. wide, composed of quartz and copper ore, and worth 1 ton per fm., and looks promising for an improvement. The lode in the 28 fm. level, driving west of Taylor's engine-shaft, is 2 ft. wide, worth 1½ tons per fm. The lode in the 28 fm. level, driving east of the same shaft, is 2 ft. wide, worth 1 ton per fm. The lode in the 28 fm. level, driving south of the same shaft, is 2 ft. wide, worth 1 ton per fm. 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Mining Correspondence.

BRITISH MINES.

ABBEY CONSOLS.—J. Trewin, Nov. 13: The lode in the western engine-shaft is producing occasional stones of lead ore, and more promising than for some time past. We have resumed the driving of the 10, west of the engine-shaft; the lode here is producing 3 to 4 cwt. of lead per fm. The lode in the back of the 10, east of the western engine-shaft, are worth about 7 cwt. of lead per fm., and the lode on the south lode are worth from 4 to 5 cwt. per fm. The lode in the winze is producing 7 cwt. of lead per fm. There is no change to notice in the rise in the back of the 10, east of the western engine-shaft, since last reported. The lode in the back of the 10, east of the said shaft, are much the same as for some time past, yielding 5 cwt. of lead per fm. The lode in the 10, east of the east engine-shaft, is producing a little lead ore. The lode in the back of the 10 are worth from 9 to 10 cwt. of lead per fm.

ALFRED CONSOLS.—T. Trelease, S. Uren, Nov. 17: The 170 is now extended 3 fms. east of Field's engine-shaft; the lode in the present end is 4 ft. wide, composed of white prisms, black, and muddle, with a better appearance. The main lode in the 140, east of Davey's engine-shaft, is 5 feet wide, yielding good stones of ore, not of much value, but looking promising for improvement. The north lode in the 130, east of the above shaft, is at present rather small, producing stones of ore. The main lode in this level, east of the said shaft, is 3½ feet wide, spotted with ore; this lode in the 120 is without alteration for the past week; this lode in the No. 2 winze, sinking below the 110, is worth 45¢ per fm. The north lode in the No. 1 winze, sinking below the 120, is worth 15¢ per fm. The south lode in the 110, east of No. 1 winze, is improved, now worth 30¢ per fm.; this branch, west of said winze, is worth 7½¢ per fm.; this branch, east of said winze, in the lodes, is worth 25¢ per fm.; west of ditto, 18¢ per fathom; this branch in the 100 is worth 14¢ per fm. No change to notice in the 70 on the new north lode since our last report.

ANGARRACK CONSOLS.—J. Barratt, Nov. 10: Cox's shaft is down 7 fms. 2 ft. 9 in. below the 12 in hard ground, which is impregnated with muddle throughout. The cross-cut being driven north in the 12 has not intersected the lode; this end is in 14 fathoms from Cox's shaft, in easier ground, with indications of being near the lode.

ASHURTON UNITED.—W. Hosking, Nov. 17: Saturday, Nov. 6, being our setting-day, I set the tin tribute pit on the Union lode, in the eastern part of the mine, at an average tribute of 11s. in 12; and two pitches in the adit, on the Beam lode, in the western part of the mine, at an average tribute of 9s. in 12. The pumping at the engine-shaft is carried on with all possible dispatch, but owing to the bad condition of the shaft we cannot make such progress as I could wish. We have also caused a little delay in consequence of the bucket-rod dividing in the lift, but which has now been set right, and we are again forking satisfactorily, and I hope we shall soon reach the 35 fm. level. I have set two copper pickers, to six men, in the back and bottom of the 14, and as soon as the level is completely secured, and the pit repaired, the tributaries will at once commence breaking ore. Parry's shaft has been fully secured to about 11 fathoms below adit; I find this shaft also to be greatly out of repair. Brother's sump and winch-shafts will be completed from surface to adit in the course of a few days. In the tin dressing department we are getting on well. We have now a sufficient stream of water to keep 32 heads of stamps regularly at work. In all other surface operations we are getting on as fast as possible.

BALLYMOORE.—W. Barkla, Nov. 13: We have still water coming from the 55 cross-cut, south, but without any particular change for the past week; driven since last report 2 ft., total 5 fms. 2 ft. In the adit east the ground looks more favourable for driving, but no change for sulphur: driven since last report 5 ft., total 47 fms.

BALLYVIRGIN.—D. Macdonald, R. Fellow, Nov. 11: No. 1 winze is sunk 16½ ft. under the 10; the present bottom being poor, we have suspended the sinking, and removed two of the men to drive east from the north end to the east branch of the lode. We set a fathom stent to these men, at 50s. per fm., the other four men are still employed in the winze, taking down a bunch of ore from the north end of it. Should there be no improvement in this place we propose putting these men to stope a piece of ore ground in the back of the 10, over the shaft. No. 2 winze is sunk 6 ft. under the bottom of the level. The lode appears to be making down; we estimate it will yield 25 cwt. of lead and 1 ton of muddle per fm. No. 3 winze is sunk 1 ton of copper, ½ ton of lead, and 4 tons of muddle per fm.; set to four men, at 6¢ per cubic fathom. The south stope is worth 1 ton of lead and 5 tons of coppery muddle per fm.; set to four men, at 5¢ per cubic fathom. We have put ½ ton of lead, 1 ton of second crop copper, and 6 tons of muddle to pile; and prepared for the crusher 1½ ton of lead and 4 tons of third crop copper ore. We have dispatched the *Mariner* with a cargo of copper ore and muddle to the Mersey, and are in treaty for another vessel, to take a cargo of lead and muddle to the Dee.

BEDFORD CONSOLS.—J. Mitchell, Nov. 18: The lode in the middle adit level assumes a more promising appearance than for some time past; the lode is yielding good stones of ore, and looking very promising for an improvement.

BEDFORD UNITED.—J. Phillips, November 16: The lode in Andrew's rise, in the 130 east, is worth 2 tons of ore per fm. The lode in the winze sinking in the 115 east is still worth 6 tons of ore per fm. There is no alteration in the 115 west since last report; the same remark will apply to the new engine-shaft sinking in this level. The lode in the 105 west is 3 feet wide, and is worth 2 tons of ore per fm. We are driving by the side of the lode in the 47 and 45 fms. levels east. The lode throughout the mine continues to yield as last reported.

BOILING WELL.—J. Delbridge, Nov. 13: The old engine-shaft is sunk 7 fms. 9 in. below the 60; ground is favorable, lode 4½ ft. wide, yielding some good work for lead, blende, and copper ore. Austin's engine-shaft is sunk 5 fms. 4 ft. below the 40; ground rather harder than usual. In the 60 west the lode is 4 ft. wide—poor. In the 50 east the lode is 5 ft. wide—tribute ground. In the 40 east the lode is 15 in. wide—tribute ground. In the 20, east of Syrett's, the lode is 9 in. wide—good stones of copper ore. In the 30 west, south lode, the lode is 6 in. wide, yielding good stones of lead. In the 20 west the lode is 2 ft. wide, yielding saving stuff for copper. In the 10, east of Austin's, the lode is worth 10¢ per fm. The 10 rise is worth 10¢ per fm. In the 20 rise, west of Austin's, the lode is 1 foot wide—tribute ground. In the 20, east of King's, the lode is 9 in. wide—opening in tribute ground. In Robert's shaft, sinking below the adit, the lode is large, and at present looks promising for a further improvement. Our stopes are a little improved since the last setting.

BRONFLOYD.—M. Barbary, Nov. 17: The lode in the various stopes and drivages is, on the whole, much of the same character and appearance as when last reported on, and will on an average yield the usual quantity of ore. During the last two or three days our dressing operations have been much impeded by the severity of the weather, which at present is without any appearance of yielding.

BRYNAILL.—J. Roach, Nov. 18: The lode in the rise above the 10 is producing full 4 tons of lead ore per fm., making the produce of the rise, 9 ft. long, upwards of 6 tons per fm.; consequently, at the present price of ore, the rise is worth 50¢ per fm. The 10 east, on south part of lode from No. 4 cross-cut, is worth 14¢ per fm. for lead ore. The ground in the 25 cross-cut is harder than when reported last week; but pretty good progress is still being made.

BULLER AND BASSETT UNITED.—G. Reynolds, Nov. 17: The sinking of the engine-shaft is going on without any hindrance. The lode is composed of tender spar, with spots of copper ore and muddle, and being from 3 to 4 feet wide, with an underlie of 2 feet in 1 fathom. I have every reason to think that we are not far from a very productive one. The lode going back west, at the 50, is also large, with roughs of muddle and occasional stones of ore throughout, which still bids fair for our deeper levels. The engine and pitwork are working well.

BWLCH CONSOLS.—R. Northey, Nov. 13: The lode in the 70 is small and poor. The lode in the stope in the back of the 70 is worth 15 cwt. of lead ore per fathom. The stope in the back of the 60 is improving, worth for lead 7 cwt. per fathom. The lode in the 60 is 3 ft. wide, and worth for lead 6 cwt. per fathom. The lode in the stope in the 24 of the 40 is worth 6 cwt. of ore per fathom. The lode in the 40, in the old mine, is 2½ ft. wide, with spots of lead. The stope in the back of the same level is worth 6 cwt. per fathom, and the stope will soon be up to the level workings. We are getting on with the repairing of the old shaft as well as can be expected; it is in a very bad condition. Our surface work, dressing, &c., are going on well.

BWLCHSTELLAN.—R. Northey, Nov. 15: The men are getting on with the sinking of the shaft very well; it is now down 5 fms. 2 ft. below the 15 fm. level.

CALSTOCK CONSOLS.—W. B. Collier, Nov. 15: In the 24 east the lode has been taken down for 12 ft. in length, and has averaged from 2 to 3 ft. wide, worth for ore 3 tons to the fathom; the lode in the 24 west is 3 ft. wide, and worth for ore 3 tons to the fathom; under the 24; there has been no lode taken down in the shaft for the month. On the last taking down of the lode it was from 2 to 3 ft. wide, and will yield for ore 5 tons to the fathom. In the 24 west the lode to the west of the shaft has not yet been cut, but we expect to reach it in the course of a day or two. In the cross-cut north at the 24 the ground is harder for driving. The stope in the back of the 24 continues to yield about 5 tons of ore to the fathom. In the back of the 12 there are two tribute pitches at work, and one pitch in the back of the adit on the caunter lode. There is no change in the other parts of the mine.

CAMBORNE CONSOLS.—W. Roberts, Nov. 15: No change to note since my last.

CARADON CONSOLS.—Wm. Rich, Nov. 16: The sinking of Thomasine's shaft is being forced on as fast as possible. We have seen the lode in the eastern side of the cross-course, where it is also very regular and well defined. We find that the cross-course has the lode a few feet south, termed a right hand heave. I look upon this as rather a favorable indication. The lode in the adjoining mine (West Caradon) have similar heaves by the cross-course there.

CARDIGAN CONSOLS.—James Sanders, Nov. 16: Saturday last being our pay and setting-day, the following bargains were set:—The 20 drive was set by six men, for one month, at 9¢. 10¢ per fathom; the lode in this end is very hard and is yielding stones of ore occasionally, and an improvement is shortly expected. The 10 to drive east by four men, at 9¢. 10¢ per fathom; the lode in this end is a little improved, yielding good stones of ore occasionally, but the ground being very hard our progress in driving is very slow. The 10 to drive west by four men, at 4¢. per fathom; the lode in this end is very unsettled and unproductive at present; but the ground being easy for driving it is thought advisable to drive a few fathoms further, to prove the lode in this direction. The stope in back of the 10 fm. level, 70 fms. west of engine-shaft, is looking very promising, yielding at present from 12 to 15 cwt. of lead ore per fathom; set to four men, for one month, at 8¢. per ton. A pitch in bottom of the 10 by two men, for one month, at 8¢. per ton. All the slimes and halvaus at the lower floor to dress, for one month, at 8¢. per ton for lead ore. Two other tribute pitches are working, one in bottom of the 10, west of footway shaft, by six men, at 5¢. per ton; and one in back of the 10, at Pen-y-Bwlch, by two men, at 8¢. per ton. These two pitches were set on Sept. 9 for two months, and according to present appearances, the men are getting wages. The cross-cut in the 20 is held to the winze, and will be completed in a day or two. We have had very severe frost for the last two nights, with very hard wind; so much so that it is impossible at present to get the water through the launders to the pumping-wheel. We sampled 20 tons of lead ore at Aberystwyth yesterday.

CARMARTHEN UNITED.—R. Sanders, Nov. 16: Harrison's engine-shaft is down to the 22, and we shall, by Thursday morning, have completed the fork, when we shall commence dividing and bed-placing the shaft, &c., so as to bring the horse-whim kibble down to that level. The 12 south is still very promising, the lode being in the present end about 4½ ft. wide, and will produce about 7 cwt. of lead per fathom. The 12 north is still unproductive, therefore I have suspended it for the present, and have put the men to cut a plan, preparatory to sinking a winze in bottom of the 12, north of shaft.

CARVANNALL.—Wm. Roberts, Nov. 15: In the 120 west the lode is 2 ft. wide, producing iron, soft-spar, prisms, and a little ore, but not enough to value. In the 113 west the lode is 2½ ft. wide, chiefly composed of crystallized iron. Other parts much the same.

CARVATH UNITED.—R. Hancock, Nov. 15: The lode in the 50 east, east of the engine-shaft, opening out wider, and likely to improve ore lons. The lode in the 50 west is not quite so good as it has been, but is still producing tin; the stope in the back of this level is yielding just the same quantity of tin as before. The lode in the 40 west is improved; it is producing some good work for tin, and looking kindly to improve. We sampled more crase last month than usual, and the tin sold on Friday last did not pro-

duce so much in consequence. We sold 2 tons 10 cwt. 1 qr. 16 lbs., which realised the sum of 175s. 4s. 3d.

CATHERINE AND JANE CONSOLS.—R. Harry: In the deep adit end, driving north-west, the lode is 2½ feet wide, of the most promising character, and producing at present over 1 ton of ore per fm., of excellent quality; the ground still continues favourable for driving, and very congenial for the production of lead ore. The lode north-west of No. 4 winze are worth about 5 cwt. of ore per fm., and the lode north-west of the rise are producing 10 cwt. of ore per fathom. The lode in the cross-course are yielding from 8 to 9 cwt. of ore per fm. The lode in the middle adit end is 9 in. wide, and will produce from 4 to 5 cwt. of ore per fathom, and likely to further improve. In No. 5 winze, sinking under this level, the lode is 15 in. wide, and producing a little saving work for lead. We shall finish clearing and securing the western shaft to the shallow adit level this week; and on Monday next we shall commence driving the end north-west with all speed.

COCKLEY BECK COPPER MINE.—Wm. Phillips, Nov. 15: I have again carefully examined your extensive set, with Capt. B. Nicholas, which may be thus briefly described. The Cockley Beck range of hills, with other parts adjoining, form an elevated tract of land, which may be said to extend on its eastern extremities from the valley of Cockley Beck on towards Conistone and Green Burn Copper Mines, where large quantities of rich copper ore have been found to exist. We examined the surface and outcrop of the Cockley Beck lode, which can be traced for a considerable length. Crossing the summit of this range, the outcrop of the lode has a very good appearance; it is composed of spar, gossan, peach, prisms, and spots of yellow copper exist in the slate formation; the outcrop of the lode is from 1 to 6 ft. wide; the set extends along the south side of the River Duddar, from Cockley Beck to the county town, which comprises about 130 square miles. After going over the surface, we then examined a level driven about 130 feet above the river—the shallow adit; this level is driven 150 fathoms under the outcrop of the lodes. From the distance of 100 fms. on up to the cross-course from the entrance the lode is very much unsettled. To the east of the cross-course we find a great change; the lode is from 1 to 3 feet wide. About 20 fathoms east of the cross-course some ground in the back has been worked or stope away for copper ore. There is also a winze sunk under the above stope 6½ fms. deep, where 220¢ worth of rich copper ore was found and sold, which brought from 10¢ to 14¢ per ton, in its rough state, at which time the market price was about 8¢; we could not see the bottom of the winze within about 3 ft. we believe the men had done their best to get out the water in time without cutting the stope. In the east end of the winze the lode is 2 feet wide, and for about 6 feet high above the water there is some good work; we got out one stone which weighed 23 lbs.; the men broke a barrowful out of the same place in our presence. In the west end of the winze the lode is poor, there is some of the lode yet standing against the hanging wall; we cut in the side about 1 foot, which is principally gossan and spots of rich ore, but found no wall. We next examined the deep level, which is driven from the river to intersect the Cockley Beck lode, 20 fms. below the upper level; the lode is cut and driven on about 8 fms., and will average about 3 feet wide, yielding some rich stones of ore. It is worthy of particular notice, after the expenditure over a considerable time, that the bearing measures are nearly approached, and a period arrived at which fully justifies the most sanguine hopes of a speedy and complete success. We estimate 3000¢ will prove the mine; and gentlemen who have money to venture in mining may do well in laying it out in the above mine. This mine is highly deserving a good trial, and every advantage which may be required is at hand for water power, both for pumping, winding, grinding, stamping, and dressing the copper ore. I have fully explained the present state and prospects of the mine; it presents itself under the most favourable circumstances, and offers every inducement worthy of consideration, having the most favorable geological features, besides the great advantage of a reduced and moderate royalty of 1-20th, for 21 years unexpired, and no other rents to be paid.

COLLACOMBE.—S. Mitchell, Nov. 16: During the week the 54 fm. level, west of the western shaft, has been driven 9 feet. The lode here is 4 feet wide, composed of capel, quartz, prisms, and from 1 to 1½ ton of good ore per fm. The lode in the back of the 62 is still worth 1½ ton of rich ore per fm. The pitches have a little improved.

CROWDALE.—J. Richards, Nov. 18: There is no alteration in any part of the mine since my report of last week.

CWM ERFIN.—Nov. 16: During the past week the lode in the bottom, or 60 fm. level, going east from the drawing shaft, has been disordered by a cross branch from the south, and is at this time unproductive; but, judging from the regularity of the bottom and other indications, I calculate that the lode will shortly resume its former character. The lode in the 57, going east from the drawing shaft, has still further improved, being at this time full 5 ft. wide, yielding 1½ ton of lead ore per fm. Agreeable with my last report, the winze sinking below the 45 has been communicated with the 57; the winze comes down as far east as the present end, and thereby nicely ventilating this part of the mine. The lode in the 57, going east from the back of the 57, 30 fms. east of the drawing shaft, is 4 ft. wide, yielding 12 cwt. of lead ore per fm. The lode in the 50, east of the 45, 50 fms. east of the cross-cut, is 3 ft. wide, yielding ½ ton of lead ore per fm. The lode in the stopes in back of the same, and 30 fms. east of the cross-cut, is 5 ft. wide, yielding 1 ton of lead ore per fm. The lode in the winze sinking below the 32 is 3 ft. wide, yielding 15 cwt. of lead ore per fm. The lode in the 32, going west of the cross-cut, is small and poor, but carries a regular and well-defined wall. The lode in the stopes in back of this level, 15 fms. east of the cross-cut, is 3 ft. wide, yielding 8 to 10 cwt. of lead ore per fm. The lode in the 20, going east from the cross-cut, has improved since last report, being at this time 2 ft. wide, yielding 1 ton of lead ore per fm. The lode in the stope in back of this level, over the cross-cut, has got small and poor, and will be abandoned unless further improvement. The lode in the 10, proceeding east from the cross-cut, looks a little more promising; I calculate by our extending the level a few fathoms further eastward to meet with a more productive channel of ground. The tribute pitches are without any alteration to notice.

CWM SEION.—J. Boundy, Nov. 15: There is no change to notice in the 70 east since last report. In the 70 west the lode is 12 ft. to 13 ft. wide, composed of spar, blende, and lead ore, yielding of the latter 5 cwt. per fm. The lode in the winze sinking below the 69 is much the same as last reported. The lode in the 30 cross-cut has improved since last report, and looking kindly for further improvement. All other points much the same as for some time past. The weather has been very boisterous during the last three days; so much so that it has put a stop to our dressing department.

DALE.—R. Nines, Nov. 17: The 43, going towards the Pipe vein, is much the same as when last wrote, being water, and which we are getting ready to draw more. The Pipe, the 26, going towards the Lam, is without alteration, and so is the pitch on Johnson's lode, in the back of the 20.

DENHAM BRIDGE.—John Hamblin, Nov. 18: In taking down the lode in the adit level, driving west this week, I find it improved in size and quality, and appears to be opening as we go on, carrying a soft flooken on the south wall.

DEVON AND CORNWALL UNITED.—T. Neill, Nov. 16: The lode in the 40 is large, and producing good stones of ore. In Bastard's level the water is still issuing very freely from the cross-cut. The stope in the back of Bastard's are producing 6 tons of ore per fm. The stope in the back of the midway level, on the north lode, are producing 8 tons per fm. In the middle level east the lode is gradually improving, and now producing some saving work for copper ore. In the adit level, driving west at William and Mary, the lode is worth 2 tons of ore per fm. In the winze sinking below this report, being at this time 2 ft. wide, yielding 1 ton of lead ore per fm. The lode in the 40, east of the 40, is 4 ft. wide, and worth 4 tons of ore per fm. No alteration in any other part of the mine.

DEVON AND COURTESY.—T. Bowden, Nov. 18: The lode in the end driving west in the 100 is about 3 feet wide, composed of capel, muddle, and copper ore, worth for the latter ½ ton per fm. The lode in the rise in back of the 80 will turn out 3 tons of ore per fm. The lode in the pitch in back of the 80, west of the caunter, will turn out 3 tons of ore per fm. The lode in the pitch east of the caunter, in the 80, will turn out 1 ton of ore per fm.

DEVON BURRA BURRA.—J. Lord, Nov. 18: The ground in the 40 north and south is just as usual; there is an increase of water from the north cross-cut, and has every appearance of being near the lode. At White's shaft, driving north, the men are making good progress. We are driving east on the branch by two men; it is looking kindly for leading off from the cross-course to a large lode.

DRAKE WALLS.—T. Gregory, Nov. 11: Bettelley's engine-shaft is the required depth for the 100, but we propose to sink 6 feet further for the necessary bearers and cistern previous to driving the 100. The branches in the 92, east of Matthews's shaft, are producing saving work. The branches in the 80 are not so productive at present. In the 70 east the lode is producing saving work. The branches in the 60 are disordered with a little North lode. In the 70 west the lode is from 3½ to 4 ft. wide, of a very promising character, worth 7½¢ per fm. for tin, with occasional stones of copper ore. We propose to put up a rise on this lode to prove it more effectually as quick as possible. The lode in the deep adit end produces a little tin and copper ore, but not in sufficient quantities to save. We hope shortly to find it more productive, judging from present appearances. We have no change to notice in the different stopes throughout the mine.

T. Gregory, Nov. 19: I can readily conceive the disappointment felt in London with the smallness of our returns; but I can assure you it has been a matter of deep regret and anxiety to us here. We have pushed hard from day to day, but the stuff being so poor has defeated us. We are, as you suggest, endeavoring to draw more; and in order to do so, have placed on a few extra stopen, but it requires some time to derive any benefit from them. The western stope below the 70, in the old mine, is not producing much, and we have set to the men to drive in preference to stopeing, which will be of more speed and less cost to reach the machine-shaft. The north lode looks very promising, and yields 1½¢ per cent. for tin. That you will perceive is much higher than the produce of the old mine, and gives every encouragement that in reaching the great cross-course we may have a rich lode, bearing in mind the quantity of stuff to be sent to surface would not be on the whole a bad thing. We have had our men and four boys employed here; the lode being hard and strong they cannot drive fast; but when there is room to put on a man and boy more it shall be done immediately. The dry weather is greatly against stamping. I do hope for a change shortly, to set on the stamps; a ton of tin could be had monthly from them, if not more. The new machine for dressing does not act well with the rough tin; we are, therefore, going to try the shovel and strips on a different plan from the last, and will alter the length of lift as you describe. If you can suggest any better plan, we shall be glad to receive a sketch from you. I hope we shall shortly be enabled to give greater satisfaction to the shareholders in this mine, and be much more comfortable on the mine also.

EAST ALFRED CONSOLS.—H. Skewes, Nov. 17: Painter's engine-shaft is sunk 9 fms. under the 30. We think we have not cut the north part of the lode in the 30, and are driving north in search of it. There is no other alteration to notice since last report. We shall sample about 40 tons of ore on the 23d.

EAST CARN BREA.—T. Glanville, Nov. 16: In the engine-shaft, sinking below the 14, the lode is 20 inches wide, composed of spar, and ore, and ore, yielding about 2 tons of the latter per fm. In the 14 west the lode is 18 in. wide of gossan, mixed with ore. In the 14 east the lode is 18 in. wide of spar, intermixed with ore.

EAST GUNSLAKE AND SOUTH BEDFORD UNITED.—J. Phillips, Nov. 16: The lode in the 75 west is 4 feet wide, and is worth 2 tons of ore per fm.; the stope in the back of this level are worth 3 tons per fm. The stope in the back of the 49 west are still yielding 3 tons per fm.—South Lode: The lode in the 20 east is 2 ft. wide, and is worth 1½ ton of ore per fm. There is no alteration in any other part of the mine.

EAST PROVIDENCE.—W. Hollow, T. Uren, Nov. 16: We are going on well with sinking the different shafts. Harvey's shaft is sunk 4 fms. 2 ft. below the adit level; the lode here is split into two branches, one about 10 in. wide, the other about 6 inches; these branches are producing stones of tin, but at present nothing to value; we expect in a few feet more sinking they will again be together. Poole's shaft is sunk 3 fms. 3 ft. below the 10; the lode here is 12 in. wide, producing occasionally small stones of copper ore, and letting out a large quantity of water. Phillips's shaft is sinking below surface by four men, at 4¢. per fm.; the lode here is 2 ft. wide, of a promising character, producing low priced saving work for tin. The adit level is driving west from Poole's shaft, and will be completed in a day or two. For the last 6 ft. of driving the lode is disordered and split up into branches.

EAST ROSEVALE.—J. James, Nov. 13: In the 49 cross-cut, north of engine-shaft, the ground is much as last reported. In the 43 cross-cut south the ground is very wet, and a little improved. We have suspended the 42 west, on Brook's shaft lode;

also the 22 west, on north lode. These ends have yielded occasional stones of copper, but are at present unproductive. We had resumed sinking the winze in the bottom of the 22, east of Matthews's cross-cut, on north lode, in which the lode is 1 ft. 3 in. wide, yielding some good copper. In the 22 east, north lode, the lode is 1½ ft. wide, muddle and gossan, and a very kindly lode. Hallett's shaft is held to the 22; the men have commenced to cut a pit. Our tribute is without change to notice.

EAST TAMAR CONSOLS.—G. E. Tremayne, Nov. 16: There is no particular alteration to notice in any part of the mine since last week's report.

EAST WHEAL FALMOUTH.—Wm. Hancock, Nov. 16: The caunter lode in the 30 east shaft is split in branches by a bunch of hard ground; I have suspended it for the present, and put the men to work in the back to hold a piece of ground for the advantage of stopeing. The same level west, on Chennell's lode, is producing stones of lead, not enough to value. The 20 west, on the latter lode, will produce 4 cwt. of lead per fm. No. 1 stope, over this level, will produce 11 cwt. of lead per fm. No. 2 stope, in the bottom of the 20, north of the rise on the caunter lode, will produce 4 cwt. of lead and 7 cwt. of lead per fm. No. 3 stope, south of the rise on the said lode, will produce 7 cwt. of lead per fm. No. 4 stope, in the back of the 30, south of Tyack's lode, on caunter lode, will produce 12 cwt. of lead and 4 cwt. of lead per fm. No change to notice in any other part. We are pushing down the engine-shaft as fast as possible.

EAST WHEAL RUSSELL.—J. Goldworthy, Nov. 15: We have not held the shaft as yet, but from appearances we expect to do so hourly. The lode in the 66 end is looking more promising, and producing a little saving work for ore. Nothing new in any other part of the mine.

J. Goldworthy, Nov. 18: We communicated Homersham's shaft to the 88 to-night, and we shall now prepare for cutting plate, &c.; and on Monday next we shall resume the driving of the 88; this gives us good ventilation for driving. The lode in the 66 end is showing indications of an improvement—ground driven this week 6 ft. There is no change in the tribute pitches to notice since last reported.

EAST WHEAL TOLGUS.—Nov. 13: Bedruth Consols Lode: In the 46, east of the engine-shaft, the lode is 1 ft. wide, unproductive. In the rise in back of the 34, towards John's shaft, the lode is 4 ft. wide, producing 1 ton of copper ore per fm., and saving work for tin. The lode in the 22, east of John's shaft, is 3½ ft. wide, producing stones of copper ore, and saving work for tin; the same remark will apply to the 12, east of John's shaft. The lode in the stope in bottom of the 22, west of Stephens's winze, is yielding 3 tons of ore per fm. At John's shaft, sinking below the 22, the lode is 4 ft. wide, but not so good as when last reported, now yielding 1½ ton of ore per fm. for length of shaft (10 ft.), and saving work for tin. The lode in the stope in bottom of the 12, west of John's shaft, is yielding 2 tons of ore per fm.; and the stope in back of the 12, east of John's shaft, is yielding 3 tons of ore per fm. In the adit east, on the north lode, the lode is small and poor.

GAWTON.—J. Gill, Nov. 17: In the 50 fm. level east the ground still continues of a favorable character; no change in the lode to notice since last week. Since holding the rise the men have been engaged cutting into the lode, and expect shortly to reach the north wall, and to meet the ore zone down from the level above. The stopes and pitches are looking much the same as last reported.

GELLIRHEIRON.—R. Northey, Nov. 15: The lode in the stope in the back of the 5 is worth 2 tons per fm. The lode in the 20, east of winze, and on the north part of the lode in the back of the 20, is worth 10 cwt. per fathom. The end and stope on the south part, and west of winze, is worth 9 cwt. per fathom. The lode in the 20 west is 3 ft. wide, with a mixture of lead ore. The lode in the back of the 30 is worth 12 cwt. per fm. The lode in the 40 east is small at present, and the stratum unsettled; we have put the men to drive south, to prove if any part of the lode is standing in that direction.

GERNICK.—J. Barratt, Nov. 16: The 36 end, being driven east from flat-rod shaft, on Gernick lode, is just the same as when last reported; the lode produces black ore, not enough to value, yields considerable water, and the stratum subject to changes.

GREAT HEWAS UNITED.—J. Webb, Nov. 17: Western Mine: We have nearly held the winze sinking below the 86 on the rise from the back of the 96; the lode here is good work for tin. We have not taken down any lode for the last 2 fms. driving in the 76, the ground is rather harder than usual. The lode in the 66 has been small and unproductive for the last 2 or 3 fms. We have put a stope of 3 ft. over the bottom of the level for 7 or 8 fms. in length, a little behind the end, and have a good lode going down; this is 25 fms. before the 70 end.—Eastern Mine: The 56 east is improved, and letting out much water. We have a tiny lode in rising a few fathoms behind this end towards the 30; the lode in the 36 is unproductive. The stope generally are yielding tin, just as for some time past. We shall sell about 18 tons of tin this week.

GREAT ONSLOW CONSOLS.—G. Rickard, Nov. 16: The ground by the side of the lode in the 87 west has become somewhat easier for driving through. The lode in the 107 west has been cut through nearly 2 fms., but the north wall has not yet been reached. It is composed of quartz, chiefly spotted with copper ore. The lode in the 107 east is gradually increasing in size; it is composed of quartz, peach, a little muddle, and a small quantity of copper ore. We have commenced making the needful preparations for the sinking of the engine-shaft.

GREAT SOUTH TOLGUS.—J. Daw, Nov. 17: Friday last was setting day; Lyle's shaft is sunk 3 fms. below the 90; the lode is 2½ ft. wide, producing a ton of copper ore per fm. The sumpmen are employed in cutting cistern-plate for fixing a plunger-lift at the 90. In the 90, east of Lyle's shaft, the lode is 2 ft. wide, producing some cool ore, but not enough to value; set to four men, 3 fms., at 4¢. per fm. In the 80 east the lode is 2 ft. wide, unproductive; set to four men, 5 fms., at 3¢. per fm. In the 80 east the lode is 1½ ft. wide, producing 2 tons per fm.; set to six men, 3 fms., at 3¢. 10s. per fm. We have also set a rise in the back of this level to two men, 2 fms., at 4¢. per fm. The 80 west is unproductive, and the men put to rise in the back of the level; set to two men and two boys, 3 fms., at 2¢. 10s. per fm. In the 70 the lode is 2 ft. wide, producing 1 ton per fm.; set to two men and two boys, 2 fms., at 4¢. per fm. The 70 cross-cut to drive south, by four men, 4 fms., at 3¢. 10s. per fm. Also, the 70 cross-cut to drive north, by two men and two boys, 5 fms., at 3¢. 10s. per fm. In the 60 the lode is small and unproductive; set to two men and two boys, 2 fms., at 4¢

ening. In the end in the back the branch is 10 in. wide, every throughout, the ore appears to be dipping east towards the cross-course, where large deposits may be expected. I would recommend the sinking of the shaft with all possible speed, in order to intersect the granite at the foot of the hill, when it is believed we shall discover a valuable property.

— Nov. 18: The 29 east is looking exceedingly promising, both in the bottom and the back; the ore in the former appears to be of a different quality to that in the back, and appears to be rising in the east as the drive east. Continuing the driving of the other shafts, the probability we shall fall in with the course of ore laid open at the surface, which I estimate to be worth at least 30¢ per fm. as such indications are rarely to be met with.

WEST TREVELYAN.—John D. Osborn, Nov. 13: Cater's shaftmen have completed sinking fork to 20, caased and divided shaft, and will resume the sinking next week. The 29, driving east from Cater's on Park lode, is driven 4 fms., lode 3 ft. wide, composed of quartz, piran, and spotted with black, grey, and green carbonate of copper ore; this end is presenting a very kindly appearance. The 20, driving west on Park lode, is driven 4 fms., lode 3 ft. wide, and showing similar indications to the 20 east. The 10, driving west on Park lode, is driven 20 fms., lode 4 ft. wide, much improved in appearance since last report, producing some rich black ore. The winze sinking below the 10, west of Cater's, is sunk 4 fms., lode 3 ft. wide, but poor at present. I highly recommend the sinking of Sergeant's shaft to the 28, which would enable us to drive the western end to lode to Cater's shaft in that level; by so doing we should effect the saving of 28 fms. of pitwork in Cater's shaft, and likewise prove the ground under the 20, east of Cater's, which is now looking very promising. Sergeant's shaft is already sunk 18 fms. below the adit, and is driven 45 fms. towards Cater's, where good stones of ore have been broken.

WEST WHEAL GRENVILLE.—Nov. 6: Since the commencement, the adit has been driven south from Typhena deep adit about 110 fms., in which three lodes have been intersected, and all of them strongly impregnated with copper and tin ore; the most southern one, on Field's lode, has been opened on east and west of the cross-cut about 30 fms., through very kindly ground, worth on an average about 6¢ per fm.; the western end is now worth 10¢ per fm.; the adit at this point is about 38 fms. from surface. A shaft has been driven from the lode, now down 20 fms., where we have met with the north, and at about 9 feet above rise up from adit, and we hope to make a communication with the same in the course of about two or three weeks; when this job is finished we shall be in a position to stop the back, drive the levels, and sink the shaft, and from present appearances we shall soon be raising some good parcels of copper ore; and it should be borne in mind that there are several other kindly lodes in the set yet to the south of this.

WHEAL ADDAMS.—Richard Moore, Nov. 17: The air being bad in the 40, south of engine-shaft, and not having air-pipes sufficient to reach the spot, I have been under the necessity of cutting a plat and driving a cross-cut in the 28, and hope by this time next week to reach the 28, now driving 10 ft., after which I shall cross the lode to the 28, from this point, and run a shaft to the 40 up to the level—i.e. the 28; from all appearances we shall have a large quantity of lead and blende to come away at this point. The tribute pitches are just as last reported. The pipes for bringing in the water are nearly all laid. The tanks are not yet made, but hope to get them ready as soon as possible. The engineer has nearly completed all the indoor work of the engine, and is now getting on with the fly-wheel and other connections.

WHEAL AGAR.—W. Roberts, Nov. 15.—In the 70 m. level, east of engine-shaft, the lode is nearly 1 ft. wide, producing stones of ore. On the south lode, in the 60 east, the lode is 4 ft. wide, producing stones of good ore, and likely to improve; in the 60 east, on the north lode, the lode is 1 ft. wide, very promising, with stones of ore. In the eastern part of the mine 18 men are employed to cut down Windslow shaft.

WHEAL ARTHUR.—Thos. Carpenter, Nov. 15: In driving the 40 west, south from flat-road shaft, a lode 6 inches big, underlying 5 ft. in a bathom south, has been intersected at 6 fms. from the shaft, containing small stones of copper ore, and we have driven a set level and engine shaft shortly to meet with the north lode. These two lodes will form a junction a little below the level, from which circumstance we may expect the north lode will become productive.—South Lode: The adit west is driven 14 fms., 10 fms. of which we passed through good ore ground, but the lode is now small and unproductive; therefore we removed the six men, and commenced cross-cutting further south, in which we have driven 6 fms. at 40s., and 3 fms. at 30s. per fm., and just cut another lode, which is small, yet larger and stronger than the above-named south lode when cut next the cross-course, and it is not here so small as the lode to the other way. Whether the lode is the main part of the lode or a distinct lode I cannot inform you at present, or for some time to come. The eastern and on south lode is 10 fathoms wide, ore small and unproductive.—Eastern Mine, Old Lode: The lode in the 20 east 12 ft. wide, ore, but not to value.—North Lode: We have commenced driving the 20 west. Instead of east; lode 3 ft. wide, yielding good stones of ore, and expect an improvement ere long. In the adit west we have driven about 10 feet in a lode worth 3 tons of copper ore per fm., and is looking better in the present end; this end is 16 fms. in advance of the 20 west.

WHEAL CREBOR.—J. Giffard, Nov. 16: There is no alteration to notice in either of the ends in the 12 since last reported on. No lode has been taken down in the pitch in back of the Tunnel level this week. In Walter's pitch, in the back of the 24, at the old mine, on the south lode, the lode is 3 ft. wide, worth 10¢ per fm.

WHEAL EDWARD.—M. R. East, Nov. 13: North Lode: We are making fair progress in driving the 82 east. No change in the cross-cut south of the 71 west. The ground in the 71 east is the main part of the lode; it is a little easier, and the lode is producing more than when last reported on. In the 52 west we are driving by the side of the lode.—South Lode: The lode in the sunup shaft is worth from 5 to 6 tons of ore per fathom for its length (12 ft.), and the part of the lode north of the horse is not being carried in sinking. The lode in the 71 east is very large, and contains spots of ore throughout. The lode in the 71 west is worth from 3 to 4 tons of ore per fathom. In the 61 east we are driving by the side of the lode. The lode in the different stopes continues to yield a moderate quantity of ore.

WHEAL EMMA (Buckfastleigh).—Wm. Goldsworthy, Nov. 15: We shall complete the sinking of the shaft to the 58 by the end of the week. The 46 west is at present very hard, and much disordered by a cross-course. The 46 east is at present very hard, and has presented a change in the lode, the part 12 fathoms driving, and is still open, and is a little gossan with a little ore and muddle; this is presenting a very promising appearance indeed. In the cross-cut north in this level we have intersected several branches of quartz, which are sprigged with ore and muddle; the ground since then is a little stiffer; however, we shall continue to push on this level as fast as possible, in order to prove the north lodes. In the 54 west the lode is about 12 in. wide, of a very nice looking spar.

WHEAL JULIAN.—J. Tucker, Nov. 17: Since my last, a fortnight since, we have continued to drive east in the 27 by six men, through a lode producing good quantities of superior quality tin, and the end at present is producing splendid work. The strata about the lode are of the most congenial nature for the production of tin or copper ore. We have also been driving with the six men, the part 12 fathoms driving, and is still open, and is a little gossan with a little ore and muddle; this is presenting a very promising appearance indeed. In the cross-cut north in this level we have intersected several branches of quartz, which are sprigged with ore and muddle; the ground since then is a little stiffer; however, we shall continue to push on this level as fast as possible, in order to prove the north lodes. In the 54 west the lode is about 12 in. wide, of a very nice looking spar.

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as yet. In the 30, east of Nicholl's shaft, we have commenced to rise, the lode is 4 feet wide, 2 ft. of the north part of the lode yielding tin, worth about 6d. per fm. We are rising it for 35s. per fm. In the 18, east of Nicholl's, the lode is 1½ ft. wide, yielding tin worth about 7d. per fm.; driving for 35s. per fm. This end is about 5 fms. west of the rise in the 30. The tribble pitches in the south part of the mine are turning out very well, and we expect by the present appearance a quantity of tin from that part of mine.

WHEAL TRELAUNY.—Wm. Jeakin, Wm. Bryant, T. Grenell, Nov. 18: Smith's shaftmen are now engaged in casing the shaft on the underlie, in order to take up and let down the pitwork. The cross-cut at the 132 is extended east 7 fathoms towards the lode. The lode in the 142, north of Smith's shaft, is 2 feet wide, worth 15s. per fathom. The south end men are removed to rise in the back of this level, to communicate with the winze sinking below the 132. The lode in the winze sinking below the 132, south of Smith's shaft, is without alteration. The lode in the 132, north of Chip-pindale's, is 2 feet wide, worth 10s. per fathom. In the 120, north of ditto, it is 18 in. wide, worth 7d. per fathom. South Mine: Trelawny's shaft is sunk to the 134, and the shaftmen are now engaged in cutting a pit at that level. The lode in the 142, south of the shaft, is 2 feet wide, worth 11s. per fathom. The lode in the winze sinking below the 130 is 2 feet wide, producing a little ore. The lode in the 130 south is 3 feet wide, worth 10s. per fathom. In the 107 north it is 2 feet wide, worth 8s. per fathom. The stopes and pitches are producing much as usual. We hope to sample to-morrow, all being well, about 85 tons of best, and 63 tons of second quality lead ore.

WHEAL UNION.—T. Glanville, Nov. 16: The following are our pitwork and tribute settings:—Tutwork: The 40 fm. level to drive east of the engine-shaft, on the south lode, by six men, at 11s. per fm.; the lode is 1 ft. wide, yielding stones of tin. The 30 to drive east of the engine-shaft by six men, at 3s. 10s. per fm.; the lode is 18 in. wide, worth 10s. per fm. for tin. The 30 to drive west towards the north lode by six men, at 4s. per fm. The 30 to drive the cross-course, on the north lode, by four men, at 6s. per fm.; the lode is 4 ft. wide, producing good stones of copper ore, with indications of improvement. The winze to sink under the 30, on the north lode, by four men, at 4s. per fm.; the lode is 2 ft. wide, producing good stones of copper ore. The new shaft to sink below the 20 by nine men, at 9s. per fm. We are obliged to suspend sinking the winze below the 20, in consequence of an influx of water.—Tribute: A pitch in the bottom of the 30, on the south lode, to extend from the winze 5 fms. east and 5 fms. west, by four men, at 3s. 6d. in 11. A pitch in the back of the 30, to extend from Bishop's winze 5 fms. east and 5 fms. west, and as high as the level above, by two men, at 3s. in 11. A pitch in the back of the 30, to extend from the distilling mark to the join Thomas Mills' pitch, and as high as the level above, by two men, at 13s. 4d. in 11. A pitch in the bottom of the 20, to extend from the point of horse 20 fms. east and 5 fms. below, by three men, at 13s. 4d. in 11. A pitch in the bottom of the 20, to extend from Law's pitch 12 fms. east and 5 fms. below, by two men, at 13s. 4d. in 11. A pitch in the back of the 20, to extend from Law's pitch 12 fms. and 10 fms. high, by two men, at 13s. 4d. in 11. A pitch in the back of the 20, to extend from the point of horse 5 fms. west and 8 fms. east, and 10 fms. high, by two men, at 13s. 4d. in 11.

ESGAIR-HIR & ESGAIR-FRAITH MINES, CARDIGANSHIRE.

We gave an interesting and very detailed account of these extraordinary mines in last week's Journal. The richness of the lode appears to have been beyond anything then, if not since, discovered. Waller says,—"There are in the North of England many rich mines discovered, but there are none, either in England or Wales, that can pretend to come near the value of the famous mines of Sir Carbery Price. I have not read or heard of such a mine of lead in all the world as the great vein, which is 11 ft. wide betwixt its firm sides, and 7½ ft. already in pure ore, which still increases downwards, and it is not doubted but at last it will come to be 11 ft. in ore." As instances of the profits of lead mining even in those days, when that metal was so much lower in price than it is now, Waller refers to several lords in the North, who made from 7000l. to 17,000l. per annum. In February, 1700, Waller, having observed that the new discovery continued to improve, "gave Andrew Stack a guinea for his venture, and to discharge his bargain; and afterwards, the same day, set the same bargain of 100 tons to John Pryse and partners, at 14s. per ton, the vein being then gathered into a solid rib of ore, about ½ yard wide, and in some places 1 yard wide, in firm ore, besides a rich mixture of ore and veinstone, about 5 ft. more." The lode still increased in size and richness, which was confirmed by the reports of several practical men who were called in to inspect the mines, and by shareholders who visited them. The importance of the returns may be judged of from the fact that smelting-works were erected for smelting the ores, the profits of which were considerable. The mines were then in 4008 shares, and sold at 17s. per share; and for half the concern Sir Carbery Price was offered 40,000l. by an eminent London merchant, which he refused, because Waller had convinced him that a clear profit of 70,500l. per annum could be made. As stated last week, the present company is divided into 1000 shares of 10l. each, and the affairs are under the management of Mr. J. H. Murchison, of Bishopgate-street Within, who deserves that success which great energy and perseverance, and an independent promotion of legitimate mining, in an eminent degree entitle him to. In reply to numerous enquiries, we may state that the name of the company is the Cardiganshire Consolidated Mining Company (Limited), or, as abbreviated, Cardigan Consols.

ROYAL SANTIAGO MINING COMPANY.—A few weeks since the directors of this company issued a circular informing the shareholders that unless further funds were forthcoming it would be necessary to dispose of the property, and suggesting to the shareholders that any number of them might combine to purchase the entire property and plant as it stood, and by continuing to work the mines reap the fruits of the long labour which has been bestowed by the existing company upon them. In reply to this, "One who has paid all calls, but is not desirous of repeating that which he did not sow," explains how far more desirable it would be to borrow the small sum of 5000l., which he estimates will be ample for bringing the mines into a dividend-paying condition. Surely, he argues, it would be better to raise this small sum than permit others to step in and take the profit upon the Santiago Company's capital. From this it will be seen that, considering the money already spent as utterly lost (and, as the mines must be stopped unless more capital is subscribed, this is the only correct view of the case which can be taken), the shareholders have an opportunity of acquiring an extensive and valuable property. The Santiago Mines adjoin those of the Cobre Company; yet whilst the latter have been returning many thousand pounds worth of ore per month for some years, the former have for a long time been a drag upon the shareholders. Now, it could not be supposed that the mineral contained in the two properties differed so considerably as to account for these results, and it was, therefore, concluded that the shareholders' disappointments arose simply from misfortune, in being unable to discover the lodes traversing the property. Just as apparently a good vein had been hit upon the unfortunate accident happened, which has so damped the energy of most of the shareholders that the late call has not been generally responded to; but surely when they consider the prospects of the mines, the profits which are being realised by the adjoining company, and the fact of the Cobre Company having given, but a few months since, as much for a single pertenencia as our correspondent now estimates is required for working the entire property possessed by the company, the shareholders will see the advisability of keeping the mines in their own hands. The directors have given all an opportunity of thoroughly understanding their position, and unless prompt measures be taken the property will be sold; and should such a course be found unavoidable by the directors, the shareholders will have themselves alone to blame if a fresh set of adventurers step in, and, by the expenditure of a few thousands, secure to themselves large dividends.

MEXICAN AND SOUTH AMERICAN COMPANY.—In the Rolls' Court, on Tuesday, before Mr. Hume, Chief Clerk, Mr. Linklater's cases were heard. The first name called was Mr. Wm. Blanford, of Boulevard-street, Deputy-Chairman of the Plate Glass Company, an old shareholder and large operator in the company's shares. Mr. Linklater proposed to resist the payment of his proportion of the liabilities on the ground that the directors had paid dividends which had been afterwards found not to have been earned out of the profits of the company. He proposed to call an accountant and numerous witnesses to prove this. Mr. Travers Smith (for the official manager) and Mr. Compton Smith (for the representative of creditors) opposed on the ground that there was no proof of any fraudulent dealings on the part of the directors; and that, although Mr. Blanford might be at a future period entitled to relief in the application among the shareholders, *inter se*, it was no good answer to creditors, who must be first paid. They relied on the judgment of the Master of the Rolls in *Leatherdale's case*. The Chief Clerk said he did not see at that period in what way the evidence proposed could release Mr. Blanford; but if Mr. Linklater chose to bring forward evidence he could not shut him out. He could not, however, allow the time of the Court to be taken up, and the funds of the estate consumed, by the course proposed by Mr. Linklater, and should, therefore, call upon him peremptorily to proceed, assigning to him the 6th December to bring forward his evidence, and to turn the voluminous report of the accountant into an affidavit, and to examine any witnesses he required before the examiner. The official manager to have till the 10th December to reply, and then the whole of Mr. Linklater's cases to be proceeded with; so that, if he thought fit to take the opinion of the Master of the Rolls, they might be brought before him before Christmas. Mr. Linklater resisted this order, and asked for further time, but the Chief Clerk confirmed the order.—On Wednesday, in consequence of the arrangement made on Tuesday, there was no sitting in Mr. Linklater's cases.—Thursday was appointed for considering cases of contributories, but the Chief Clerk being ill an adjournment took place.—On Saturday (this day), a private meeting of contributories will be held at the London Tavern, to consider a proposition for compounding with creditors: to the extent of 62,900l.

RIGHT OF SHAREHOLDERS TO INSPECT BOOKS.—In the Court of Queen's Bench, on Thursday, Mr. Montague Smith and Mr. Kearlake (on behalf of the directors of the Marguitta and Sierra Granada Mining Company) showed cause against a rule granted, calling upon the company to show cause why a mandamus should not issue directing them to allow Mr. Christopher Richardson, a shareholder, to inspect the minute-books of the company. They contended that the clause in the Deed of Settlement, to the effect that the books wherein the proceedings of the company were recorded should be kept at the office of the company for inspection, applied only to the books containing the proceedings at the general meetings. It was contended, and, we think, with great

justice, that if a shareholder had a right to examine the minute-books of the board, it would be impossible to carry on the business of the company, because he could see what bargains they had made or were about to make, and might operate on the market to his own advantage and the injury of the company. On behalf of Mr. Richardson, it was urged that there was no limitation to the phrase—"books wherein the proceedings of the company are recorded." It embraced the minute and all other books kept by the directors.—Mr. Justice Erie remarked that if there were so, any shareholder in a rival company might, by purchasing shares in this company, obtain a right to examine all its private transactions. It was stated that the plaintiff contended for the right of any shareholder to inspect the directors' minutes for any legitimate purpose.—Mr. Justice Erie thought they had not shown that he wanted the inspection for such a purpose. Mr. Richardson believed that irregularities existed in the management of the company, and he wished to obtain information on the subject.—Judgment was deferred. Now, without considering what Mr. Richardson's object might be, we contend that it would be most prejudicial to the interests of any company to allow an unlimited inspection of their books; all that can justly be required by shareholders is the right to inspect the books of accounts during a certain period in each year, and if the progress of the undertaking appears unsatisfactory they should remove the directors, rather than make their trade secrets public.

ANGLO-CALIFORNIAN MINING COMPANY.—The liquidators have made a call of 3s. per share.

MIXON GREAT CONSOLS.—Vice-Chancellor Sir W. Page Wood will appoint an official manager of this company on Dec. 2; and parties claiming to be creditors are required to prove their debts at his chambers.

GERMAN MINING COMPANY.—Master Richards will appoint an official manager, in place of Thomas Hackett and Henry James Norris, deceased, on Dec. 2.

GREAT SHEBA CONSOLS.—A meeting took place before Mr. Martineau, the Tax Master in Chancery, on Wednesday, at the instigation of the Rev. Doctor Pemberton and others, to tax the bills of costs of Mr. Hobler, solicitor, formerly solicitor to the Great Sheba Company. After hearing the solicitors to Dr. Pemberton very patiently, the Tax Master said he was of opinion the bills of costs were exceedingly fair and moderate, and recommended the parties to consult with each other before further heavy expenses are incurred by affidavit; he, therefore, adjourned the case for one week.

COAL MINERS' BENEFIT SOCIETY.—The conflict between the coalmasters in the Wakefield and Metherley districts continues, and both parties seem as firm as ever. The masters have twice refused the arbitration proposed by the men, as well as another offer. No doubt the sufferings which the men have been subjected themselves to during the seven months that the dispute has continued have been great; but if Mr. Baydon's proposition for establishing the "Coal Miners' Benefit Society" be carried out, the colliers will be more than repaid for their perseverance in maintaining their ground. In the draft for the society it is proposed—1. Miners not under 15 years nor above 50 years of age may become members by paying a contribution of from 1s. 6d. to 6s. per week, varying with the age they entered the society, will entitle them to receive the following allowances:—2. An allowance of 10s. per week to be paid to the members during sickness; 3. An allowance of 5s. per week to be paid to every member from the 60th birthday to the age of 65, or during permanent incapacity of labour until death, and 4s. per week during the widowhood of any member's wife.—4. An allowance of 5s. to be paid on the death of any member, and 4s. on the death of any member's wife or widow. If a miner be 40 years of age, he will have to pay 3s. per week in order to reap the advantages alluded to. Mr. Baydon likewise observes that, should his calculations be nearly correct, it appears quite clear that if the coalmasters are successful in their reduction of 15 per cent. of the money wages, and which can only be effected by starving out the men, there will be an end of the eight hours' blessing, as well as the proposed Miner's Benefit Society, and all its advantages; for supposing the miners' average age 40 years, and they commence paying 3s. per week in order to obtain the advantages hereafter alluded to, it is just the sum per week of 15 per cent. of their old wages. He hopes, therefore, the coalmasters will perceive this fact, and at once come to amicable arrangements with their workmen. And should the masters still stand out, surely the public at large and all ratepayers will insist, in a voice and manner which cannot be resisted, that the poor fellows shall have such remuneration in wages paid to them as shall secure to themselves and families a comfortable maintenance, as well as to provide funds for sickness, and for those accidents and deaths to which the dangerous nature of their employment renders them peculiar liable, and which if not provided for out of their wages will have to be made up sooner or later out of the poor-rates of the country at large.

THE COLLIERIES AND THE COAL OWNERS.—A very comprehensive statement of the origin, cause, and results of the colliers' strikes and lock-out in the Leeds and Wakefield districts has just been put forth in the shape of a pamphlet, by the colliers, and adds another convincing proof of the justice of their cause, and of the overbearing manner in which they have been treated by their employers. The notions entertained by our leading political economists, are, doubtless, well worthy of adoption; but those who take them for their guide should bear in mind that the principles laid down are intended to be applicable to all classes alike, and there is not to be one law for the rich and another for the poor. An old proverb says "that those who live in glass houses should not throw stones," yet the masters, whilst attempting to compel the men to abandon their union, maintain the most powerful confederacy possible amongst themselves. The colliers state that from 1848 to 1854 the coal trade was nearly uniform in price of coal and scale of wages; which continued up to January, 1855, when coal began to rise in price from 5s. per ton to 8s. 9d. in January, 1854—this the masters themselves admit. The colliers' wages were advanced 25 per cent., compared with the scale of 1852, whilst coal had advanced 75 per cent., and is now 90 per cent. above the prices of 1852. It cannot, therefore, be said that wages should be reduced on account of the price of coal. The colliers have done their utmost to obtain an amicable settlement, and have, it appears, secured the sympathy of all around them, the coalmasters alone excepted, and it is to be hoped that they will be supported in their struggle by the benevolent throughout the kingdom.

COAL AND IRON IN BELGIUM.—The coal trade has increased most rapidly; in the five years from 1841 to 1845, the average quantity annually raised was under 4,500,000 tons; whereas in 1855 it had risen to 8,500,000 tons; the statement for 1856, it is expected, exhibit a considerable diminution, amounting in the coal basin of Mons alone to 400,000 tons. This diminution is to be ascribed to financial difficulties with France, and partly to a reaction caused by the extraordinary rapid manner in which the trade has increased of late. It is not probable that the trade in English coal will increase; the import of English coal in 1856 only amounted to 34,577 tons, although the duty was virtually *nil*. The iron trade has considerably improved; the production is now valued at about 90,000,000 lbs. annually, and has doubled during the last ten years. Holland, Brazil, and Turkey are the chief customers of Belgium for iron. England only takes 100,000 lbs. The manufacturing machinery has also become a flourishing trade; there are now in Belgium 3300 machines, of 90,000 horse power. France, Holland, and Sardinia are the chief countries of export.

GOLD DIGGING V. COPPER MINING IN AUSTRALIA.—The *Adelaide Observer* published an article on Victorian Statistics, showing that 62,236 persons were permanently engaged in the search for gold, and that they procure from the ground in the year gold to the value of 10,000,000l. It was also shown that that sum, divided among the number of persons so employed, would give for each 160l. 9s. A "Copper Miner," referring to this statement, writes—"From data within my reach I am enabled to place in juxtaposition the actual results of six months' work at each of the two principal mines in South Australia. The published report of the Burra Burra Mine for the half-year ending March 31 shows:—That the number of persons about the mine in all ways—men and boys—was 925. That the quantity of ore raised was 6304 tons, of the average produce of 2½ per cent., equal to 151 tons of fine copper. Taking the value of fine copper in the ore to be 70l. per ton, which allows 35l. per ton for smelting charges, the 151 tons of copper were worth 105,700l. That sum divided upon the 925 persons employed gives for each 114l. 7s. for the half year. This we may double for the year—229l. 14s. During the last 7a. for 1857 at the Kadamat Mine the number of persons employed was 1000, and the quantity of ore raised was 188. The quantity of ore raised was 2340 tons, the average produce was 13 per cent., and the calculated quantity of fine copper 303 tons. This, valued at 65l. per ton, leaving 40l. per ton for smelting charges, because the average percentage is lower than at the Burra, shows its value to be 19,980l., which sum divided upon the 188 persons gives for each 104l. 15s. for the half-year, or 209l. 10s. for the year; the average for the two mines for the year being 219l. 2s. Here, then, it is fairly shown that actual value has been extracted from these two copper mines in the proportion of 219l. to 104l. per person employed, whereas in the case of gold, in result of gold on the Victorian fields have only gained 160l. 9s. each, the difference, 58l. 13s., being nearly 36 per cent. in favour of copper mining. All these statements are facts that cannot be controverted or gainsaid. They show how little real cause there would be for South Australians to regret the absence of gold fields if sufficient energy were applied to the proper and extensive development of the rich deposits of copper that exist in almost every portion of this province. The gold discoveries in Victoria gave a fatal check to copper mining here for a while; but it is gratifying to observe that it is again gaining ground, and it is no exaggerated anticipation to say that in a very few years copper mining will resume its position at the head of the industrial and profitable pursuits of South Australia."

GENERAL ASSOCIATION FOR THE AUSTRALIAN COLONIES.—It will be remembered by our readers that a meeting of gentlemen connected with the Australian colonies was recently held at the St. Paul's Hotel, for the purpose of supplying a deficiency which had been found in the constitution of the Association for the Australian Colonies, when it was stated by Mr. Farmer (the Chairman), who had convened the meeting, that since he had done so he had been informed of the existence of the association whose name appears at the head of this paragraph, and the object of which was explained to the meeting by Mr. Boufield, the secretary of the association, the result of all which was the passing of a resolution by that meeting.—That as a society was already in existence which was intended to answer the purposes of the society intended to be formed by that meeting, the present meeting be requested to become members of it; and the meeting was adjourned to Monday last, to enable the gentlemen present to ascertain if the regulations of the association were such as to meet their views. A meeting was accordingly held on Tuesday named (Nov. 16) at the same place, which was attended by Mr. Farmer, who again took the chair; Mr. Veal, the honorary secretary of the association; by a deputation from the meeting of Oct. 18; and by Messrs. Harper and Burn, of the Jerusalem Coffee House, on whose premises it was intended the association should meet in future, when a conversation ensued, from which it appeared that the association did meet the views of the gentlemen who had convened the meeting of Oct. 18, and that they would accordingly join it. The only objection appeared to be the third rule of the association, by which the annual subscription of 2l. 2s. was made payable in advance, from or on June 1, without reference to the period of the year at which the member might have joined. This rule it was suggested, and apparently understood, should be modified. The association then broke up, without passing any formal resolution, except a complimentary vote of thanks to the Chairman.

HARBOUR OF REFUGE.—The Royal Commissioners visited Rurswick Bay, near Whitley, on their way from Redcar to Whitley. The commission was formally opened in St. Hilda's Hall, when evidence was taken in favour of Whitley as a harbour of refuge. On the following day, Admiral Hope, the Chairman, called upon Dr. Morryweather, who stated in the following terms the claims of Rurswick Bay as a harbour of refuge.—1. The great advantages offered by nature, which could not be similarly constructed by art for less than ten to fifteen millions sterling; also its natural conformation as a harbour.—2. The immense quantity of freestone, of the most durable character, which is close at hand, at the end of each breakwater.—3. That the breakwater could be constructed in a comparatively short space of time, and almost giving instant security to the ships that might enter the bay, and thereby saving the lives of the crews, and the comparatively small amount of money which would be required would be insignificant, contrasted with the lives and property that would be saved.—5. That it would greatly increase the number of fishermen, and thus form a nursery for seamen, consequently be a great benefit to the nation.

* With last week's Journal we gave a SUPPLEMENTAL SHEET, which contained a very interesting Essay on the Value of Mines in Cardiganshire, with a series of mining reports from the agents, over 150 years old; and the second part of Notes on Mining and Metals.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Nov. 19, 1858.		
COPPER.		
Copper wire	£ s. d.	
ditto tubes	0 1 3½-1 1	
Sheeting & bolts	0 1 1½-1 1½	
Bottoms	0 0 11-0 15	
Old (Exchange)	0 0 9½-0 10	
Best selected	0 0 0-0 0	
Tough cake	98 0 0-0 0	
Tile	98 0 0-0 0	
South American	90 0 0-0 0	
IRON.		
Bars, Welsh, in London .	7 5 0-0 0	
Ditto, to arrive	6 15 0-7 0 0	
Nail rods	7 10 0-0 0	
" Stafford, in London .	8 0 0-9 0 0	
Bars ditto	8 0 0-9 0 0	
Hoops ditto	9 0 0-9 10 0	
Sheets, single	9 10 0-10 10 0	
Pig, No. 1, in Wales . .	3 15 0-4 15 0	
Refined metal, ditto . .	4 10 0-5 5 0	
Bars, common, ditto . .	6 5 0-6 10 0	
Ditto, railway ditto . .	6 10 0-6 15 0	
Ditto, Swed. in London .	12 10 0-15 0 0	
In the lake to arrive . .	2 13 0-2 15 0	
Pig, No. 1, in Clyde . .	2 19 0-3 2 0	
Do. in Fyne & Tees . .	2 17 0-3 0 0	
Ditto, forges	4 10 0-5 0 0	
Staffordshire Forge Pig .	4 10 0-5 0 0	
Welsh Forge Pig	3 0 0-3 5 0	
LEAD.		
English Pig	21 0 0-21 15 0	
Ditto sheet	22 5 0-0 0	
Ditto red lead	23 10 0-0 0	
Ditto white	27 0 0-30 0 0	
Ditto patent shot	25 0 0-0 0	
Spanish	20 0 0-20 10 0	
American	none.	
* At the works, 1s. to 1s. 6d. per box less.		
BRASS.		
Sheets	10½d.-10¾d.	
Wire	9½d.-9¾d.	
Tubes	13d.-13½d.	
FOREIGN STEEL.		
Swedish, in kegs (rolled)	17 10 0-0 0	
" (hammered)	20 10 0-0 0	
Ditto, in fagots	21 0 0-0 0	
English, Spring	18 0 0-23 0 0	
QUICKSILVER	£ lb. 0 11-0 12	
SPELTER.		
Foreign	22 10 0-0 0	
To arrive	22 7 6-22 10 0	
ZINC.		
In sheets	31 0 0-0 0	
TIN.		
English, blocks	121 0 0-0 0	
Ditto, Bars (in barrels) .	122 0 0-0 0	
Ditto, refined	126 0 0-0 0	
Banca	122 0 0-123 0 0	
Straits	121 0 0-0 0	
TIN-PLATES.		
IC Charcoal, 1st qua. p. box.	1 12 0-1 13 0	
IX Ditto 1st quality . .	1 18 0-1 19 0	
IC Ditto 2d quality . .	1 10 0-1 11 0	
IX Ditto 2d quality . .	1 10 0-1 11 0	
IC Coke	1 5 0-0 0	
IX Ditto	1 11 0-0 0	
Canada plates	10 15 0-15 0 0	
In London; 20s. less at the works.		
Yellow Metal Sheathing .	p. lb. 9½d.-0 0	
Wetterstedt's Pat. Met. .	p. cwt. 2 3 0	
Indian Charcoal Pigs . .	In London	- 7 10 0

REMARKS.—A good demand has existed for most kinds of metals, and our market has continued very steady at ruling prices. There is a slight advance in some quotations.

COPPER.—This metal is still difficult to procure in any quantity, the smelters declining to accept orders; a few purchases have been effected at an advance in price, but, although the market outwardly has such a steady appearance, the actual amount of business doing in all kinds scarcely seems sufficient to justify any advance in fixed rates. There are considerable enquiries for unwrought, but for manufactured orders are not comparatively large; and, as is usually the case when this metal is not to be obtained of the Thames-street houses, orders appear to swell very fast; yet when sales begin to be effected, they are again withdrawn, or lower limits given, so that the *bona fide* demand at the present time, although improved, is not extensive; a rise, consequently, would have a prejudicial effect upon manufacturing. As the demand is more pressing for cake, it would be better that the price for that and best selected be advanced 2l. to 3l. per ton, and, probably this slight difference might be the means of suiting smelters, who are now paying long prices for common ores, and, at the same time, judiciously adjust the market.

IRON.—For nearly all descriptions the market presents a favourable appearance. Rails have been realising 6l. 10s. at the works, and, probably, further contracts could be made at the same figure. Merchant bars have not risen in proportion, yet are in tolerable fair request; the ironmasters will not book orders for forward delivery under 7l., and dealers in London require 5s. per ton more from stock here. Staffordshire best qualities are better, and many of the ironmasters are very well off for work. Swedish bars are dull. Scotch pigs are flat, and the market has receded to 53s. m.n. Shipments have fallen off, and stock greatly increased. Prices, therefore, assume a downward tendency, but nothing material is anticipated; probably slight fluctuations will ensue until next year.

LEAD.—Nothing of importance has transpired to affect the position of this metal; sellers accept orders freely at our quotations, and a large order might be placed at a trifle under.

SPELTER.—Buyers appear now to have satisfied nearly all their requirements, and the transactions of the past week have been confined to a few insignificant purchases, just keeping prices as before.

TIN.—English continues in fair demand. Foreign is a shade dearer, or at least, it is reported, somewhat better prices have been obtained—123l. 10s. for a small lot reported to-day. Straits is not anywhere offered; buyers would purchase for arrival or on the spot at ruling rates, but holders entertain a good opinion of it, and will not sell unless at 3l. or 4l. per ton above last price paid.—**TIN-PLATES.**—Quiet, and easier in price.

STEEL.—All the rolled steel here is sold; a little hammered to be bought at 20l.

LIVERPOOL, Nov. 18.—During the past week the market for metals has been very quiet, and the tone may be said to be rather drooping than otherwise. The demand for Welsh iron is not so brisk as it was, and sellers are now to be found willing to accept orders at rates formerly refused. The same remarks apply also to Staffordshire iron, for in this branch of the trade the demand, already limited, appears to be still further decreasing, and, consequently, all quotations must be regarded as nominal. The price of Scotch pig-iron continues to droop, and the market is quite inactive. The shipments for the week are only 7577 tons, against 11,025 tons for the corresponding week of last year. This falling off, together with the still limited local consumption, cannot but materially assist the daily increase of the stocks. In copper and tin a good business is being done at full rates. Smelters are plentifully supplied with orders, and are indisposed to accept contracts for any considerable quantities. Tin-plates appear to be in somewhat less request, without, however, causing any alteration of moment in prices. Lead is not much enquired for; the tone of the market favours buyers. The following are the quotations:—Iron: Merchant bar, 6l. 12s. 6d. to 6l. 17s. 6d. per ton.—Tin: Common block, 121l. per ton; common bar, 122l.; refined block, 126l.—Tin-plates: Charcoal, IC, 31s. to 32s. per box; coke, IC, 25s. to 26s.—Lead: English sheet, 23l. per ton; English pig, 21l. per ton.—Copper: Cake and tile, 98l. per ton; best selected, 101l. per ton; sheathing and bolt, 11d. per lb.—Yellow metal sheathing, 9½d. per lb.—Steel: Blistered, 30l. to 40l. per ton; spring, 18l. to 24l.; cast and shear, 50l. to 60l. per ton.

GLASGOW, Nov. 18.—During the past week there has been no material change in our pig-iron market; the price continued drooping until 53s. was reached yesterday. To-day there is an apparently temporary reaction, and iron was in request at 53s. 3d. per ton. No. 1, Gartsherrie, 58s.; No. 1, g.m.b., 52s. Shipments, 7877 tons, against 11,025 tons last year.

NEW YORK, Oct. 30.—Scotch pig-iron is in good demand; the market being firmer, prices showed an upward tendency; we observe sales of 600 to 700 tons at \$22-50 cents cash, \$23-50 c. at six months; sales of 25 tons of English hoop have taken place at \$70, cash; 100 tons of common English bar, \$46, at six months, and 100 tons of American rails, Eric pattern, at \$57-50 cash. For copper sheathing and yellow metal there has been but very little enquiry; but refined ingot is held with firmness, and we have not observed any sales since those noted in our last; 2000 to 3000 tons of old copper have been sold for 20 c. to 21 c., cash. Tin remains very quiet, holders being firm at previous rates; the only sales that have taken place have been 500 to 600 slabs, at 27½ c., cash. Tin-plates are dull, and much depressed, the sales being entirely confined to jobbing transactions. It is reported that the Mosselman Company intend to reduce the price of sheet zinc to 8 c. on Jan. 1, next. For lead there is no demand, the quotations being merely nominal. Spelter is in good request; we hear of sales of 25 tons at 5½ c. cash, and 6 c. for parcels on their way from England.

BOMBAY, Oct. 24.—In Metals, English bar-iron is looking dull, as also square nail rod. Round nail rod is in good demand, as also hoop and bolt. Sheet has been dull, and further declined, holders real

In the COAL MARKET, owing to the prevalence of easterly winds, there has been but a scanty supply of coals during the week, and a slight advance has taken place, the prices being—For best qualities, 19s. 6d. to 20s.; second, 17s. 6d. to 18s. 6d.; manufacturers', 15s. to 16s.; Hartley's, 16s. to 17s. 6d. The numbers of ships at market on Monday were 69; sold, 33. On Wednesday a further advance of 6d. took place; ships at market, 23; sold, 14. Yesterday there was but a very small supply, only 15 ships being at market, the whole of which were sold. The closing prices were—Best, 20s.; second, 17s. 6d. to 19s.; manufacturers', 17s.; steam, 21s.

In SALTPETRE, during the past week, a brisk trade has been doing, more especially for common qualities, the prices obtained for the most part being at an advance upon last week's quotation. We note sales of 2897 bags of Bengal, 11½ per cent. refraction, 40s. 6d.; 8½ per cent. refraction, 41s. 6d.; 5 per cent. refraction, 43s. 6d.; 6 per cent. refraction, 42s. 6d.; 3½ to 4½ per cent. refraction, 43s. 6d. Also 255 bags of Bombay, refraction 33½ to 32 per cent., 32s. 6d. During the week 121 tons have been landed, and 180 tons delivered, leaving the stock on hand 3015 tons, against 6710 tons at the same time last year.

The little flashes of excitement which burst out now and then, and lead us to expect a reaction that shall last, and break up the dull monotony that has so long continued in the general as well as in the MINING MARKET, have not yet led to the results we have looked for. Business to a certain extent is doing, and enquiries are made almost daily for mining investments as well as for mere speculations, but not, on the whole, to the amount that we might reasonably, looking to the abundance of money and good price of metals, have expected by this time. Great complaints are also made of the absence of business in other securities on the Stock Exchange, which is so far consoling, inasmuch as it shows that mines have at least their fair proportion of attention. Lady Bertha advanced from 22s. to 32s., but leave off at 29s. to 31s. East Russell advanced to 7½, or 17 per share, since our last, and after a large business leave off at 7½ to 7¾; Homersham's shaft has been holed to the 88, and driving will be commenced on Monday. West Frances, 14 to 15. South Frances, 240 to 250; the new lode has been valued at 70¢ per fm., and considered of great importance to the mine. North Frances have been in fair demand at 6½ to 6¾. Craddock Moor shares have advanced to 28, in the face of stopping the dividends; at the meeting, the accounts showed a profit on the two months' working of 31½. 19s. 11d., and a balance in hand of 698½. 15s. 3d.; the next sale of ore is expected to be 217 tons. Gomanena, 8 to 9; at the meeting, the accounts showed 137½. 3d. in hand, and 90 tons of ore sampled. West Caradon, 115 to 120; South Caradon, 400 to 410; Wheal Mary Ann, 46 to 46½. Ludcott shares have been in good request, and advanced to 2½, 2½. In Pendeen very large purchases have been made, and price advanced to 3½; the mine, we understand, has been thoroughly inspected, and the report of a satisfactory character; this system of having mines inspected by independent agents, which we have so long advocated, is getting much into fashion, and will do good, and inspire more confidence in mining pursuits. Herodfoot, 6½ to 6½, and more enquired for; Pedn-an-drea, 15s. to 17s.; North Downs, 2½ to 2½. Redmoor, 4s. 6d. to 5s. 6d.; the returns of lead for the last two months, Oct. and Nov., will realise nearly 4000, and 50 tons of copper in course of dressing; but the Kelly Bray copper lode this week is not looking so well as it did in the stopes. Kelly Bray shares have advanced from 31s. 3d. to 2½, 2½, owing to the cutting of the lode in the eastern part of the mine. Wheal Margaret, 62½ to 65; Providence Mines, 60 to 62½; Rosewarne and Herland, 5½ to 6½; Rosewarne, 30 to 32½, and flat. Great Hewas, 3 to 3½; the mine is looking better generally, and expected to make a profit of 2000, this month. Great South Tolgus, 13½ to 14; South Tolgus, 7½ to 8½; East Tolgus, 5½ to 6½; Wheal Wrey, 1½ to 2; Wheal Crebor, 1 to 1½; Tolcarne, 11s. to 12s.; Vale of Towy, 3 to 3½; Great Alfred, 2½ to 3; Alfred Consols, 7 to 7½; North Minera, 5½ to 6; West Seton, 290 to 300; Wheal Edward, 2½ to 2½; Great Wheal Vor, 2½ to 1; Condurrow, 45 to 55; North Basset, 7 to 7½; West Basset, 2½ to 3; Par Consols, 16½ to 17½; East Carn Brea, 5½ to 6; South Carn Brea, 2½ to 3; Kitty (Lelant), 8 to 9. East Basset shares have been firmer, and more enquired for, at 100 to 102½; the 135 tons of copper ore sampled on Thursday is calculated to yield 13300, or an average of nearly 10¢ per ton; and 2300 of tin having been sold for the same two months, a profit of nearly 6000, is made; the lode in the 80 is not yet cut. Carn Brea are flatter, at 60 to 62½; the mine, however, continues to look well in Burncoose. Tehidy, 3 to 3½; these shares have been long flat and neglected, but a good improvement has taken place, and the High-burrow lode daily expected to be cut, so that a short time may see the mine in a much better position. Wheal Trelawny have been largely dealt in at 26 to 26½; Treweatha, 10s. to 12s. 6d.; Wheal Grenville, 25s. to 27s. 6d.; East Trefusis, 2½; Tincroft, 3½ to 3½; North Dolcoath, 4½ to 4½; Wheal Buller, 17s. to 18s.; North Crofty, 2½ to 3½; North Roskear, 14 to 19; South Condurrow, 3s. to 3s. 6d.; Marke Valley, 2 to 2½, and more enquired for. West Par, 13s. to 15s.; Wheal Uny have declined to 10, sellers; the copper lode lately cut does not look so well in the 50, but may improve going east, as it gets under the bunch gone over in the 40. Devon Great Consols, 460; the lode in Agnes' shaft has materially improved, being 5 feet wide, and worth 12 tons per fm. Cwmystwith, 250 to 300; East Daren, 10s.; Old Tolgus, 30.

At Truro Ticking, on Thursday, 4486 tons of ore were sold, realising 23,828. 18s. 6d. The particulars of the sale were—Average standard, 134. 14s.; average produce, 6; average price, 5½. 6s. 6d.; quantity of fine copper, 268 tons 10 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Or copper.
Oct. 21	4245	128 17	6 ½	£5 11 4	£86 5
" 28	2667	129 2	7	£5 6 0	89 16
Nov. 4	4387	128 16	7 ¼	£5 6 0	91 2
" 11	3704	129 1	6 ½	£5 15 0	90 1
" 18	4486	134 14	6	£5 6 6	88 15

Compared with last week's sale, the advance has been in the standard 17. 6s. 6d., and in the price per ton of ore 1s. 8d. Compared with the corresponding sale of last month, the advance has been in the standard 4½. 2s., and in the price per ton of ore 5s. 2d.

At Wheal Buller meeting, on Tuesday, the accounts showed—Balance last audit, 1712. 5s. 2d.; copper ore and tin stuff sold (deducting 227½. 11s. 11d. dues), 3462. 18s. 8d.; Copper Hill adventures for crushing ore, old iron sold, and sundries, 1152. 18s. 7d.; on account of tin, to be returned, 4000. = 3452. 2s. 5d.—Mine cost, Sept., 1067½. 18s. 8d.; October, 1062½. 15s.; merchants' bills, 6104. 19s. 7d.; income tax, 507. = leaving balance in favour of mine, 2753½. 17s. 2d. The profit on the two months' working was 1041½. 12s. A dividend of 12800. (5s. per share) was declared, and 1473½. 17s. 2d. carried to credit of next account.

At Levant Mine meeting, on Tuesday, the accounts showed a balance in favour of mine of 1811½. 14s. 2d. A dividend of 2s. and bonus of 3s. (8000.) was declared, and 1011½. 14s. 2d. carried to credit of next account.

At the South Garsra Mine meeting, on Nov. 12, the accounts showed—Balance last audit, 7600. 0s. 6d.; ore sold, 2197½. 2s. 6d.—Mine cost, July to Sept., 1190½. 3s. 4d.; merchants' bills, 5711. 1s. 3d.; dues, 1277. 3s. 9d.; leaving balance in favour of mine, 1008½. 14s. 2d. A dividend of 512½. (2s. per share) was declared. Capt. W. Burrows and R. Tysler reported that the 50, north of engine-shaft, was driven about 42 fms.; Gregory's stopes, in back of this level, were worth 1 ton per fathom. Ball's stopes, in back of the 40, were worth 2 tons per fathom.

At the Wheal Bal meeting, on Nov. 9, the accounts showed—Balance last audit, 3187. 15s. 10d.; arrears of call, 5s. 6s.; tin sold, 931½. 16s. 6d. = 1255½. 18s. 4d. Mine cost, July, 2204. 12s. 2d.; Aug., 2077. 8s. 7d.; Sept., 299½. 15s. 10d.; dues, 207. 14s. 8d.; merchants and carriers, 2207. 7s. 3d.; dividend, 1207. (10s. per share); leaving credit balance, 1677. 13s. 8d.

At the Craddock Moor Mine meeting, on Nov. 10, the accounts showed—Balance last audit, 9307. 10s. 4d.; ore sold, 1508½. 7s. 7d. = 2486½. 17s. 11d.—Mine cost, 1067½. 9s. 8d.; merchants' bills, 3607. 17s. 11d.; lord's dues, 977. 0s. 4d.; dividend, 283½. 15s.; leaving balance in favour of mine, 638½. 13s. 3d. Capt. H. and J. Taylor reported that they had cut Vercia's lode in the 72 cross-cut north, which was from 2½ to 3 ft. wide, and composed of quartz, muscovite, fluor-spar, and yellow copper ore, worth of the latter full 2½ tons per fathom. They had resumed driving the 72 cross-cut south towards Menadue lode. Their next sale would be, computed, 217 tons of average quality copper ore.

At the Gomanena Mine meeting, on Nov. 10, the accounts showed—Ore sold, 7507. 8s. 9d.; call, 512½. = 1271½. 8s. 9d.—Balance last audit, 3857. 10s. 1d.; mine cost, 6007. 10s. 3d.; materials, &c., 1477. 10s. 2d.; leaving balance in favour of mine, 1377. 18s. 3d. Capt. R. Pascoe and W. George, jun., reported that the 80, driving set on Sarah's lode, had greatly improved; the 58 east, on this lode, had also improved. They recommended a level to be driven on the branch seen in the 90 cross-cut, east to the cross-course, and then cross-cut north to intersect Sarah's lode. They sampled on the Monday previous, computed, 90 tons of copper ore.

At Kelly Bray Mine meeting, on Thursday (Mr. P. Watson in the chair), the accounts showed—Balance last audit, 1677. 15s. 7d.; sales of ore, 1604½. 19s. 5d. = 1782½. 15s.—July cost, 5512½. 5s. 7d.; Aug., 2077. 1s. 10d.; Sept., 4907. 18s. 2d.; leaving balance in favour of mine, 1647. 5s. 6d. The report was very encouraging. Messrs. Field, Mackey, Richards, Northen, and P. Watson, were elected a committee of management.

At South Dolcoath and Carnarthen Consols meeting, on Nov. 11, the accounts showed—Balance last audit, 677. 3s. 1d.; ore sold, merchants' bills, &c., March, 1324. 2s. 2d.; April, 1357. 10s. 10d.; May, 1407. 1s. 8d.; June, 1144. 7s. 4d.; July, 1234. 5s. 6d.; August, 1177. 6s. 9d.; Sept., 1557. 12s. 9d.; interest and bankers' commission, 87. 1s. 10d.; sundries, 67. 5s. 6d. = 1004½. 17s. 5d.—Ore sold, 297. 8s. 6d.; call received since last audit, 678½. 16s.; ditto since August last, 534½. = leaving balance

against mine, 2277. 17s. A call of 2s. per share was made. Capt. Roberts reported that the tinwork bargains were—Driving the 70 cross-cut south by six men, at 47. 10s. per fathom; the 40 north by four men, at 67 per fathom; the odd south by four men, at 11. 15s. per fathom. The principal objects in view were the cutting of the other lodes in the cross-cuts, and the drainage of the ore ground below the 60.

At North Roskear Mine meeting, on Nov. 9, the accounts showed—Balance last audit, 7187. 11s. 8d.; mine cost, Aug. and Sept., 2000½. 18s. 1d.; merchants' bills, 875½. 16s. 8d.; water rent, 297. 19s.; dues, 1247. 3s. 6d. = 3779½. 10s. 10d.—Copper ore sold, 29907. 8s. 4d.; tin, 373½. 4s. 4d.; carriage on tin, 14s.; leaving balance against mine, 14057. 2s. 2d. The loss on the two months' working was 6587. 10s. 6d. A call of 1s. per share was made. Capt. Joseph Vivian reported that the tin stopes had a little improved, and the tribute was without alteration to notice. They expected to show a profit at their next account.

At South Lady Bertha Mine meeting, on Monday (Mr. Watkins in the chair), the accounts showed—Balance from last audit, 2737. 7s. 7d.; merchants' bills, 417. 9s. 5d.; July cost, 1267. 10s. 10d.; August, 1097. 4s. 8d.; September, 1027. 6s. 6d.; claim upon 1000 trust shares, 1357. = 7877. 19s.—Calls received, 4147. 13s.; leaving balance against mine, 3737. 6s. The liabilities amount to 3377. 6s. A call of 2s. per share was made. The report of Capt. Goss, was read which was very encouraging. There were 35 tons of copper ore ready for the crusher, of a good produce.

At the Cubert United Mining Company adjourned special meeting, on Tuesday (Mr. Carlisle in the chair), Mr. Brown, jun. (the secretary) explained that after every ascertained liability had been disbursed there remained in hand a balance of 24½. The Chairman said, as the company was adjourned wound-up, it was for the shareholders to decide whether they should be paid the balance; and, after some conversation, it was agreed that it should be left to the disposal of the committee. Mr. Fairbairn thought the committee ought to have the best thanks of the meeting for the trouble they had taken in winding-up the affairs of the company, and moved a resolution to that effect, which was seconded by Mr. Hutton, and carried.

At the Enys Mines (Wendron) meeting, on Oct. 26, the accounts showed—Balance last audit, 9557. 9s. 9d.; mine cost, &c., July, 2177. 18s. 10d.; August, 2157. 15s. 11d.; September, 1857. 18s. 4d.; lord's dues, 127. 6s. = 15867. 19s. 10d.—Call, 9547. 1s. 8d.; black tin sold, 2737. 5s.; leaving balance against mine, 3597. 13s. 2d. A call of 6s. 9d. per share was made. Capt. Watkins reported that some ground, from 2 to 2½ ft. wide, yielding tin worth 7½. 10s. per fathom. The clearing and securing of Balcath adit would be finished by next meeting. Since the meeting Varnon shaft has been squared down to a 42 fm. level, and ends commenced driving east and west. The western end showed a most encouraging lode, 2 ft. wide, giving signs of rich tin. The eastern end also promised well; and in the bottom of the shaft a fine lode was seen, indicating the existence of a good mine.

At Wheal Harriett meeting, yesterday (Mr. Mathew in the chair), the accounts showed—Balance last audit, 3527. 3s. 6d.; July cost, merchants' bills, &c., 3417. 17s. 7d.; Aug., 2987. 5s. 6d.; Sept., 2867. 2s. 1d. = 12787. 8s. 8d.—Calls received, 5127. = copper ore sold, 6307. 0s. 10d.; tin stuff sold, 507. 4s. 2d.; leaving balance against mine, 867. 8s. 8d. A call of 2s. per share was made. The reports were very encouraging. The committee were re-elected.

At Wheal Guskus ordinary meeting, held on Wednesday, at the offices, Cannon House, Queen-street (Mr. T. Channell in the chair). A question was moved by a shareholder as to the legality of the present meeting, which had been duly convened. This, however, was over-ruled by the majority present. The secretary then laid the statement of accounts before the meeting, which showed there was a balance of liabilities over assets of 10407. 6s. 11d. It was stated that although the most strenuous endeavours had been used to get in the arrears of call, that in many cases their efforts had failed, owing to the fact that some of the shareholders were residing in foreign parts, others were deceased, and the abode of several was not known; and, therefore, to protect those parties who had always responded to their calls, it was necessary in order to carry the sale of the mine and materials, to be confirmed. After some general remarks, it was unanimously resolved that a less call than that of 2s. would be insufficient to meet the pressing engagements which must be met, consequent on the prepayment of demands of some of the creditors, this was ultimately carried. The secretary stated that, considering the present embarrassed position of the mine, he was willing to relinquish a portion of his salary; this was accepted, and a resolution was passed that the remuneration of two guineas per month should be allowed to Mr. Alfred Jeffrey, the secretary, until the affairs of the company were finally wound-up. A vote of thanks to the Chairman terminated the proceedings.

At the Buller and Bertha special general meeting, on Wednesday (Mr. W. Little in the chair), the resolution passed at the general meeting on the 5th inst., for the sale of the mine and materials, was confirmed. After some general remarks, it was agreed that the should be sold by public auction, in London, by Mr. T. P. Thomas, in one lot; and that the same be advertised in the Mining Journal.

At the Molland Mining Company general meeting, held at the offices of the company, Old Broad-street, on Thursday (Col. J. T. Croft in the chair). Mr. Nicholson (the secretary) read the report convening the meeting, and the minutes of the last, which were confirmed. A statement of accounts for Aug., Sept., and Oct., was laid before the meeting, from which it appeared that there was a cash balance in hand of only 54, and the statement of assets and liabilities showed a balance against the mine of nearly 1000. A report from the agent, Captain Bennett, was read. The accounts and report having been read, and passed, it was resolved that a call of 1s. per share be made. It was moved by Mr. J. H. and Mr. J. H. that the report should be adopted, and that the call should remain unpaid for the space of one month from the date of such call, it shall be allowable for the majority of the committee, at any meeting called for that purpose, to declare such shares to be forfeited. The committee were re-elected, and the proceedings terminated with a vote of thanks to the Chairman.

At the Bosmore and Bollowall Mine meeting, on Nov. 12, the accounts showed—Balance last audit, 997. 6s. 2d.; mine cost, May to Aug., 3517. 12s. 8d.; merchants' bills, 917. 2s. 4d.; surgeon and club, 37. 9s. 6d.; lord's dues, 87. 8s. 6d.; stamps' rent, 237. 13s. 4d. = 5777. 12s. 6d.—Calls received, 807. = tin sold, 2027. 5s. 4d.; leaving balance against mine, 2957. 7s. 2d. The shares were subdivided, and now stand in 1600ths instead of 80ths; and a call of 17. per share was made.

At the Alton and Quenagen Mining Company meeting, held yesterday (Mr. J. Labouchere in the chair), the report stated that although there had been a decrease in the produce the first quarter of the year, yet during the last six months the returns had greatly increased; the percentage of the ore was better; and, although they had melted less mineral, yet they had returned more metal. The total loss on last year's working, ending March 31, had been 18307. From the improved prospects and reduced expenditure, the directors anticipated that a profit would be made next year, probably sufficient to declare a dividend. The produce of copper had risen to 180 tons, and the manager confidently anticipated next year this would reach 200 tons.

In Foreign Mine Shares, but very little business has been doing during the past week, the quotations for the most part remaining without any change. North Rhine Copper Mining shares (South Australia) continue in demand, and fairly maintain the price of last week, the closing quotation being 15s. per share, or ¼ premium. The Wildberg reports are not quite so satisfactory, the returns for the last month were 169 tons silver-lead ore, yielding 51½ per cent., and 3¼ cwt. copper ore; the falling off was caused by their not having been able to obtain a sufficiency of labour; the shares are nominally quoted at ¼. Worthling have been dealt in at 5s. 3d. to 5s. 9d. Rhymney Iron have been in demand at 24½ to 24½. A further fall has taken place in Port Phillip, the present quotation being 14½ to 15. Imperial Brazilian, 14½ to 15. St. John del Rey, 8 to 9; General Riquelme, 10 to 11; and Maria del Rio, 5½ to 6. The reports from the Alton and Quenagen state the produce for last month to have been 244 tons, yielding nearly 15 tons of copper, and that the quality of the ore from all the workings was much better than it had been for some months past. Cobre Copper is quoted at 36 to 37; Dun Mountain, ¼ to ½; Pontigubal, ¼ to ½; Copalpo, 11 to 13; Fortuna, 13 to 12.

From Leeds, our correspondents (Messrs. Gledhill and Co.) state that the mining market is not so brisk, there being a downward tendency in most descriptions of stock. At Wharfedale Mine, to which we referred a short time ago, in a cross-cut which was set on by Mr. William Craig about a year ago, we are informed, they have cut the vein to which the above cross-cut was directed; the vein is 2 ft. wide, rich for ore, which will materially increase the value of the mine.

Our Sheffield correspondent (Mr. G. Wilson) reports that the mining share market continues very quiet, and the quotations, which are merely nominal, are as follow:—Brightside and Froggatt Grove, 2½ to 3; Chapel Dale, 1 to 1½ pm.; Eyam, 38 to 40; Cowden Rake, ¼ to ½ dis.; Mill Town, 2 to 2½; Mill Dam, ¼ to ½ dis.; New Midland, ¼ to ¾ pm.; North Derbyshire, 1½ to 1½; Beak Forest, 1½ to 1½ pm.; Prince of Wales, ¾ to ¾; Stoney Way, par to ¾ pm.; Wheal Mary Great Consols, 1 to 1½; Winkler, ¾ to 1.

The directors of the Dublin and Wicklow Railway have issued a circular to the shareholders, setting forth the reasons which have induced them strongly to recommend the making, by the present company, of an extension to the town of Gorey. The proposed line will pass through the Vale of Ovoca, and thus bring the mining district into direct communication not only with Arklow and Wicklow, the two ports whence the produce of the mines is now shipped, but also with Dublin and Kingstown. The estimate given by Mr. Barnes, the resident director of the Wicklow Copper Company, of the quantity of ore to be carried is 80,000 to 100,000 tons a year, without taking into account iron ore, of which, under certain contingencies, about 50,000 tons a year might be added. The railway from Wicklow to Gorey will be about 30 miles in length. There being no great engineering difficulties, its construction will not be costly. The estimate of Mr. Le Fann, the engineer, is 60000. per mile.

The East Indian Railway requires tenders for 149 sets of wheels and axles, 149 sets of axle boxes, 149 sets of bearing springs, and 149 sets of ironwork.

The beauty and utility of the science of chemistry is every day becoming more apparent; and the immense advantage which must accrue to the industrial community from researches such as those which have recently been completed by Messrs. CRACE-CALVERT and R. JOHNSON, with a view to determine more accurately the comparative hardness of metals and alloys, and the result of which is recorded in another column, cannot be questioned. Regarding their labours simply in a monetary point of view, and altogether irrespective of their scientific bearing, the most casual observer will at once see the importance of their discovery,—that the alloy Cu Zn will give a brass of maximum hardness and equal in colour and appearance to those in which 90 per cent. of pure copper is at present employed. Even at the present price of copper, the financial advantage obtained would be immense; and when the relative price of the two metals which Messrs. CALVERT and JOHNSON employ in their alloy differs more largely than at present, absolutely fabulous profits might be realised. The perusal of the paper referred to will enable all connected with the manufacture of metals to possess themselves of information which will be invaluable to them in their ordinary avocations; whilst the scientific world will receive an addition to their stock of knowledge which will entitle Messrs. CALVERT and JOHNSON to their best thanks.

RHYMNEY IRON COMPANY.—As this company, with the shares at their present value (50 per cent. discount), pay in dividends little short of 3 per cent., while certain railway companies, much less promising, which do not pay even 4 per cent., are quoted at par, or nearly so, their relative value appears an anomaly, and we should be much pleased by an explanation. And here we may be permitted to observe, that the railway recently opened to Cardiff, will, of necessity, add considerably to the value of this company's shares. The dividend declared for the half year to June 30 last was 1½. upon the 50¢ shares, and 6s. per share on the 10¢ shares, free of income tax.

NORTH RHINE COPPER MINING COMPANY OF SOUTH AUSTRALIA.

Sir,—As solicitors of the North Rhine Copper Mining Company of South Australia, we beg to give publicity to this our entire contradiction to the statements made in regard to this company in a letter from a shareholder in the Great Barrier, which appeared in your Journal of Saturday last; and have further to request you will withdraw any mention of the North Rhine Copper Mining Company from such communication. 30, Clement's-lane, Lombard-street, Nov. 19. PATTERSON AND WIGG.

The OOLA SILVER LEAD AND COPPER MINES (Limerick) were offered for sale at the Auction Mart by Mr. Marsh, on Thursday, by order of the liquidator of the company. The lease under which the mines were worked comprised 12 acres of surface land, and the metals and minerals under about 528 acres, and was held for a term of 40 years from Michaelmas, 1854, at a royalty of 1-16th. The mines, including a steam-cupine of 40-horse power, and all the machinery and plant, were sold for 3000.

RAILWAYS IN IRELAND.—At the end of 1856 there had been constructed, in Ireland, 1056 miles, rather more than one-half of which were single lines, though the works were for double way. The cost had amounted to 14,000,000, the average per mile having been less than 15,000, but lately this had been reduced to from 6000. to 7000. per mile. The average receipts were 21. per mile per week, the dividend amounted to 4½ per cent., nearly, and the working expenses to 29 per cent. In England, these figures were, receipts 607. per mile per week, dividend 3-56, and working expenses 49 per cent. respectively; the cost per mile having reached 40,000. The favourable result here indicated was attributed to economy in construction and working.

The railway constructed by the Devon Great Consols Mining Company, for the purpose of carrying the copper ores from the mines to Morwellham Quay, is now completed, and will be forthwith used for carrying ores and materials, not only for the Devon Great Consols Mines, but also for those mines that are adjacent to it. This mode of carriage is calculated to save a great expense to the several companies. The railway is about four miles long, and from it is obtained delightful views of the Tamar and its neighbourhood. The locomotive engine, made at Messrs. Mitchell, Williams, and Co's Foundry, Tavistock, was forwarded to the mines on Friday last. The new dock at Morwellham, for the shipment of the ores, is nearly completed.—Corn. Gaz.

WEEKLY DIARY.

MEETINGS.	
Camborne Veau and Wheal Francis	On the mine—Nov. 22, at 12.
North Buller	27, Austinfarms—Nov. 22, at 2.
Wheal Glyn	31, Threadneedle-street—Nov. 23, at 1.
Pedn-an-drea	3, Old Broad-street—Nov. 24, at 1.
Pembroke and East Crinnis	27, Austinfarms—Nov. 24, at 2.
West Basset	50, Threadneedle-street—Nov. 24, at 2.
West Sharp Tor	50, Threadneedle-street—Nov. 24, at 1.
Providence	On the mine—Nov. 24, at 12.
Merilyn	13, George-yard—Nov. 25, at 1.
Wheal Addams	28, St. Helen's-place—Nov. 25, at 2.
Bryntall	57, Old Broad-street—Nov. 25, at 1.
Balmcon Consols	On the mine—Nov. 26, at 12.
Copiale	2, New Broad-street—Nov. 26, at 2.
Crowndale	50, Threadneedle-street—Nov. 26, at 1.

Secretaries and pursers will oblige by forwarding notices of forthcoming meetings.

LEAD ORES.	
Mines.	Sold on November 12.
Foxdale	100 £23 11 0 Walker, Parker, & Co.
Keswick	26 12 10 6 Shield and Dinning.

SOLD ON NOVEMBER 13.	
Penhaldarva	13 £21 3 6 R. Mitchell and Son.
Ditto	10 15 5 6 ditto

SOLD AT ABERYSTWYTH, ON NOVEMBER 15.	
Frongoch	120 £13 6 0 Walker, Parker, & Co.
East Daren	52 15 12 6 ditto
Ditto	30 15 0 6 ditto
Cwm Erwin	40 15 15 6 ditto

SOLD ON NOVEMBER 16.	
Wheal Consols	40 £14 11 0 Walker, Parker, & Co.

BLACK TIN.	
Tons c. q. lbs.	Price per ton.
Carvath United	2 19 1 16 £39 0 0 £ 175 4 2—Enthoven & Sons.

COPPER ORES.

Sampled Nov. 3, and sold at the Royal Hotel, Truro, Nov. 18.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	118	£7 14 6	Hingston Down	62	£7 3 6
ditto	118	8 2 6	ditto	58	3 14 0
ditto	114	7 3 0	ditto	54	3 2 0
ditto	113	8 5 0	ditto	41	4 12 0
ditto	111	3 4 6	Bedford United	107	5 16 0
ditto	107	3 4 6	ditto	107	5 16 0
ditto	105	2 17 0	Calcutt	57	5 13 6
ditto	104	2 11 0	ditto	26	6 1 0
ditto	102	8 2 6	ditto	47	7 3 6
ditto	100	7 10 0	Wheal Friendship	85	4 4 6
ditto	99	3 12 6	ditto	55	13 16 0
ditto	92	1 12 0	Devon and Cornwall	64	1 9 6
ditto	90	4 17 0	ditto	51	2 12 6
ditto	80	5 13 6	ditto	70	9 11 0
ditto	71	3 2 6	Kelly Bray	70	3 3 6
ditto	70	5 0 0	ditto	40	5 5 0
ditto	69	1 12 6	ditto	22	3 10 6
ditto	68	2 5 6	Calstock Consols	61	5 16 0

THE PROGRESS OF MINING IN 1857, BEING THE FOURTEENTH ANNUAL REVIEW.
By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Minerals*, &c.
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Notices to Correspondents.

* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

MINING COLLEGE.—As such highly favourable results are anticipated from the establishment of a Mining College at Newcastle, I presume that the fees will be extremely low, so as to enable every industrious overman to send his son there; otherwise I think the failure will be as complete as in Cornwall. Throughout my experience I have found that those who can afford to pay for collegiate instruction do not make the best miners; yet all that has hitherto been proposed for working men has been quite above their reach in a financial point of view. Let something really good and cheap, like the Bristol School, be introduced into Cornwall and the North, and we may then expect good results.—MINER: Truro.

ARSENIC.—Can any of your correspondents inform me if there is any sale for arsenic collected from tin burning-house fumes? and if there is, also furnish me with the names of purchasers?—MINER: Ashburton, Nov. 10.

REDUCTION OF POOR COPPER ORES.—T. S. (Mindon).—So far as we can ascertain, there was no substantial difference in the several processes for reducing poor copper ores, which excited so much attention some short time since; the various inventors—Burrill, Wagstaffe and Perkins, Goddard, Reid, O'Sullivan, and others, all employed an alkali as their flux; and the processes were so nearly alike, that if one were attributed to another patentee, we question whether the patentee himself would know that it was not the process he had claimed, although, when the specifications are side by side, it appears that they are not verbatim copies of each other.

QUARTZ REDUCTION COMPANY.—Some time since, I drew attention to the fact that the directors had stated they could not decide upon accepting the offer of Mr. Squire to reduce the gold in the quartz belonging to this company until Oct. 6. This period has long since elapsed: are we now to suppose that the process of Mr. Squire is a failure, or that the Chairman, despite his conviction uttered so publicly at the meeting, doubts the efficacy of the operation? It appears to me that this vacillating course of proceeding is one which must be considered not only highly detrimental to our interests, but likewise a great injustice to Mr. Squire, who has been led to believe that his invention, or *modus operandi*, could be practically tested on the ores of this company. Many of the shareholders, who have been wearied by the tedious delays, and the fruitless and frivolous excuses that from time to time have been put forward, wish to see the matter settled at once. I would enquire if Prof. Ansted, who at one time was a director, and from whom so much was expected, has been consulted as to the probability of the process? The directors had better inform the shareholders at once whether they are going to give Mr. Squire a fair trial. Our shares are at present valueless: they cannot be worse. They may, if there be any truth in what is affirmed, by this manipulation become of some worth. Under all circumstances, the termination of suspense, either for good or evil, is a consummation devoutly to be wished.—CLARENCE.

IRON SHIP-BUILDING.—During the last week, owing to the heavy gales of wind, many vessels have been lost off the coast, and we may expect to hear of still further accidents occurring to vessels, whether constructed of wood or iron; it appears the majority of these are not even secure, sea-worthy, or fire-proof. Several improvements have been proposed, but none of these have ever attained the desideratum required. Mr. John Clare, jun., of Liverpool, for a considerable period has been before the public, has shown great perseverance in enunciating his views, and it does seem strange to me, that in so wealthy a seaport as Liverpool he has found no co-operation. I do not pretend to judge of his capabilities, nor will I hazard an opinion as to the soundness of his theory; surely there must be in the important borough where he resides men of practical knowledge, who can arrive at a correct decision as to his merits. Should the propositions he so constantly is making be found visionary, palpably erroneous, or the concoction of an erratic brain, their fallacy should be immediately exposed, and Mr. Clare's powerful energies devoted to some subject which might receive a practical solution, and be of some utility to the community at large. Under all circumstances, I think it but justice to him that he should have his views in some measure tested. I by no means agree that, on the authority of his dictum, and the great faith he has in his own abilities, the money should be advanced to him to build a vessel larger than the *Great Eastern*. These extravagant notions, in my opinion, have been the main cause why he has not been listened to, when, perhaps, he ought to have had some attention paid to what he propounds. There is an old saying that "There is no chaff but that always some wheat may be picked out of it;" and I am convinced that, at least in some of the subjects broached by Mr. Clare, a little useful information could be gleaned. His principle could just as well be tried on a small vessel as a leviathan, and there ought to be public spirit enough among the shipping interest to award him a trial. Much was said some time since about the efficacy of the new floating batteries; I know not who was the inventor of these machines, but I perceive that on trial they have been found to be useless, and thus that question is definitively solved. I do not wish to encourage every inventor. They are all more or less self-opinionated, vain of their abilities, and proud of their conceptions; but still, whenever the subject they bring forward is one of national importance, I think that, for the interests of the public, they ought to have a committee of investigation, that would be able to judge whether they were charlatans, eccentric madmen, ignorant pretenders, mistaken theorists, or persons who were capable, by their abilities and genius, of becoming benefactors to the whole human family.—MELANCTON: Ash.

THE STOCK EXCHANGE OFFICIAL LIST.—Will you afford me space in your valuable Journal to draw attention to a certain clique, who profess to give the "Closing Prices" of the Mining Shares in the Stock Exchange Official List? Those who are intimately acquainted with the Mining Market need not be told how false in several cases these quotations are; but there are many who look to the official Stock Exchange List as a faithful guide. Let those parties understand that the Stock Exchange jobbers have conspired no longer to do as the quotations in the List, and that the price of a share may remain unaltered for weeks, notwithstanding its fluctuations up or down, as the case may be. I trust that before long this matter may be brought under the notice of the Committee of the Stock Exchange.—INVESTIGATOR.

THE DOWNS OR DIVING-ROD.—Having a little book in the press, which will be published by Messrs. Longman and Co. in the course of a few days, under the title of "Chemical, Natural, and Physical Magic," I shall feel much pleasure to learn from your correspondent, Mr. George Henwood, some few explanations relating to the diving-rod, described by him in your Journal of Nov. 6. The shape, length, diameter? Must it be of any particular wood? Does it point always in one direction, according to the compass? He says—"I was induced to walk over a piece of ground that I had never before seen with the mysterious twig in hand, when to my utter surprise and consternation the rod did insert, nor could I by the most strenuous endeavour prevent it." In what manner did the rod insert? and am I to understand that Mr. Henwood used his most determined physical powers to prevent the rod thus acting? Lastly, how is the rod suspended—if it be suspended? or is it held in the hands of the dowser? I am only prompted to ask these questions by a desire to sift facts from fiction, in which I believe all your readers are as interested as I.—SEPTIMIUS PIERRE: 2, New Bond-street, W., Nov. 16.

RAILWAY STATISTICS.—The figures which appeared in last week's Journal were from the Times of Nov. 6, and not those set down as totals in Capt. Galton's report, but are the correct totals, which were prepared by Mr. John Grinstead. It is important that the amount of capital authorized to be raised should be clearly known; and it will be found that on lines open and unopened it is £87,051,744, according to Mr. Lowe's return. Capt. Galton's return does not give the total amount of capital authorized, but only the amount on lines open, which, according to Capt. Galton's report, is £40,972,888; but in the Times of Nov. 6 the details are copied verbatim, and the total is shown to be £45,377,490, from which it is obvious that the errors in addition in pages 54 to 60 of Capt. Galton's report amount to £5,404,602.

"T. S." (Lincoln).—The company has been dissolved for nearly three years. Mr. Fred. Dineley, of Austinfrs, was the last secretary. We have never seen a report from Mr. Waddell, who was specially dispatched to California for the purpose of investigating the affairs of the company in that country.

THEBURY AND PENGWENNA MINES.—There seems to be great difference of opinion about the value of these properties, though I have not yet seen the views thereof of any of the acknowledged sound practical authorities. With regard to Thebury, the only question at present appears to be whether it was a rich mine, and paid dividends; and if so, to what extent? Allow me to suggest that Mr. Ennor should produce the books, and show the facts, which, from his connection with the concern when it was at work, he can do no doubt.—W. T.: St. Austell, Nov. 17.

WHEAL ENMA, AND BROOKWOOD.—As a shareholder in Wheal Enma, I agree with Mr. N. Ennor that it would be the height of folly to unite with Brookwood, after so persistently spending our time and money in bringing Wheal Enma to that interesting point, to all shareholders, when the receipts exceed the expenditure by 200% for the month, for the first time since it has started. I do not think it likely that the shareholders will agree to such a proposition. I have great hopes of Wheal Enma, and have no doubt that it will be as fine a property as any in the county. The greatest difficulties are now got over, and the 58 reached, and, if I mistake not, we shall see great things. I say, with Mr. N. Ennor, that I am content, and hope to hold my property in Wheal Enma independent of Brookwood.—OLD SCRIBBLER: London, Nov. 15.

MINING CALLS AND MINING LABOR.—In my travels through the country a few days since, I passed by one of the oldest mines in Cornwall, which is now in liquidation. The whole place bore the appearance of desolation; the machinery had been all sold, and the workmen discharged. I wondered why they still lingered around this scene of ruin. I was informed that the men were waiting for the arrears of pay due to them, some of them having as much as three months owing to them. On my enquiring the cause of this from the resident agent, he told me that the mine had never had fair play, as the gentlemen adventurers had scarcely ever paid their calls properly; the money had been advanced by the pursuer as long as he had the means; failing this, he had pledged his credit, and now was in difficulties, owing to advances he had paid on account of the shareholders for labour. I was subsequently informed that among the defaulters were several clergymen of the Church of England. I will make no further comment upon the subject, but I must state the system is most pernicious. When the miner is robbed of the reward of his labour, as appears to have been the case in this instance, and several others I could mention, persons should not complain of the injustice of the working man, when they have so fearful an example of bad faith in their employers.—JUSTITIA.

PREVENTING THE INCORUSTATION OF STEAM-BOILERS.—"D. A." (Paris).—We some time since described the patent referred to. It was taken by M. Eugene Coulson, of Croisset, near Rouen. It consists in employing the plumbates and plumbites of potash and soda, the insoluble salts of lead, and chloride of zinc. He proposed likewise to add to the substances employed sand, clay, red ochre, and muriatic acid.

TWYNHILL MINING COMPANY.—I have read lately several reports of this mine from various quarters, all speaking most favourably of the prospects of the mine, if fairly opened, and of the eight months since, when the Hon. Wm. Lubbock, M.P., visited the district, that in a short period the mine would again be set to work. There seems, however, to be some mystery attached to all the proceedings connected with the re-working of the mine. First, we were informed that some noblemen had all the property, and intended to work it as a private mine. Then it was stated some of their friends had fallen into difficulties, and consequently, a suspension of operations would be temporarily necessary until affairs were arranged. In the meantime, one of the most promising properties, according to all received opinions, is now idle. This is deeply to be regretted, as many persons were drawn from other parts of the country, and left situations which afforded a promise of a permanent home, in order to settle in this district, which was brought before them under such favourable auspices.—T. B. L.

"F. L." (Manchester).—The Western Mining Company of Western Australia, which held its annual meeting in Perth about the middle of July, are the proprietors of a copper mine. The Geraldine Mining Company are in no way connected with these gentlemen, who are only developing at present a large lead lode; it is, however, we believe, their intention, as circumstances appear favourable, to open up several of the more promising of the other veins in their possession.

NEW JIGGING MACHINE.—A correspondent, I perceive, requests as full a description of my improved jigging machine as Capt. Sylvester has given of his. I see he dates his letter from Chacewater; had he made enquiry at that village he could have seen the model; or, if he really wishes to see the plan, by taking a walk or ride as far as Vivian's foundry, at Tucking Mill, he may see it, and work it for himself. Had he been an attentive reader of the *Mining Journal*, he would have found an elaborate description of the machine in a letter addressed to the Editor some weeks since.—GEORGE DREW.

WHEAL TRELAUNY.—Knowing you are a great lover of economy, both in progressive and in retreating mining, I would solicit your attention to one of the latter, in order that you may point out a remedy, or say when the fault, if any, rests. The mine I allude to is Trelauny. I was informed by a London broker in December last that the labour cost was reduced 20 per cent., and we all know materials of every kind are reduced from 15 to 20 per cent. since the peace. I am constrained to make these remarks from comparing the working cost for the three months ending Aug. last with nine months' cost in the year 1854, when materials, labour, &c., were at the highest point.—Working cost three months ending May, 1854, 3788s. 18s. 4d.; ditto, August, 1854, 4s. 4d.; ditto, September, 1854, 9s. 5d.; ditto, October, 1854, 9s. 5d. From the amount of ore sold three months prior to the last meeting, say 6096s. 11s. 5d., and a large balance of 1848s. 1s. 8d.—7580s. 13s. 1d., it does appear that, had strict economy been exercised, there should have been a dividend of at least 17s. 10s. per share declared at the last meeting. Any information on the matter will much oblige.—A CONSTANT READER: Ireland, Nov. 15.

MINING IN WALES.—In the interesting account published last week in the *Mining Journal* of Sir Caryber Price's mines, one interesting historical fact is omitted—that Mr. Thomas Bushell, who held these mines previously, raised large quantities of silver from them. He was a zealous royalist, and a great sufferer for the cause of Charles I. Some of the silver for the use of that unfortunate and misguided monarch was minted at Aberystwyth into shillings. These bear on them the impress of the Prince of Wales's plume. Several of these curious coins are now in existence, and, among other places, can be seen at the British Museum.—CERRIBIAN.

PRACTICAL SURVEYING.—"A Young Miner."—The best work on practical surveying is, probably, the *General Book*, published by Mr. John Weale, of High Holborn. It comprises treatises on arithmetic, plane and solid geometry, mensuration, trigonometry, conic sections, land measuring, land surveying, levelling, plotting, railway and colonial surveying, and much other valuable information. If "Young Miner" puts a more definite question, we might give him a more definite answer.

WEST BASSET F. SOUTH FRANCES.—The notice in your last Journal of a *rule nisi* having been obtained in the Queen's Bench for a new trial, reminds me of the dispute between the parties, and of the behaviour of a clerk to one of the legal firms engaged for South Frances. At the last March Assizes I was subpoenaed to give evidence on behalf of West Basset. Plaintiff's solicitors having learned that I had surveyed West Basset sett, and that I had taken a copy of the plan of South Frances sett, which plan was kept at the account-house, and that both plans gave the line as claimed by the plaintiffs, required me to prove those facts, which I was prepared to do, but was not called upon to do it then, because no evidence at all was adduced on plaintiff's behalf on that occasion. After the case was concluded, and the verdict given on *ex parte* evidence, I met the clerk in question in Bodmin, when he began upbraiding me for lending myself to produce a plan which I had taken from that at South Frances account-house, through the kind permission of the agents. I told him that I had been subpoenaed, and was compelled, therefore, to attend. He said that I ought not to have informed plaintiff's solicitors of my having such a plan; and, in conclusion, said that his party would do all in their power to keep me out of employment in Cornwall. Now, I beg to state that if the agents at South Frances had declined the permission, I could have taken a tracing elsewhere of a copy of the same plan, which would have served my purpose quite as well. My purpose was to embody its contents in the "Plan of Camborne and Illogan Mining District." I find that a false impression has been made by the statements of the said clerk and his party in reference to this matter; many persons having been led to believe that I went to South Frances and deceitfully obtained the copy, with a view to assist West Basset. When I state the fact that I made the copy in Feb. 1857, it will be manifest that I had no such design in my head, for at that time the dispute between the parties, and the parties' claims, had not yet arisen, and defendants, by drawing the line to the south-east corner of Vincent's house, giving the same to West Basset, did not dispute it. It seems odd that the clerk of a legal firm should accuse me of doing wrong in accepting employment from the opposite party. It is well known that the gentlemen of that profession will render their services to any person who will pay for them; and if the masters of the aforesaid clerk (and very respectable they are) had been retained by West Basset, doubtless the zeal manifested by him would have been used on that side. In that case how much pleased they would have been to avail themselves of my assistance? I should then have been a good man, whereas in their estimation I am now a very bad one.—R. SYMONS: Truro.

WHEAL KRETT (St. Agnes).—Two errors occurred in my report, inserted last week, which I would feel obliged if you would correct. The second respecting the 82 ft. level, was of the engine-shaft, should read—"We have intersected the large cross-course in the 82 west; this has heaved the lode about 25 fms. We shall now (not "how," as printed) drive on its course until we reach the lode on (not "in") the western side of it, when we expect to LEAVE DOWN THE WATER, and drain the lode below Holgate's shaft," and not "leave down the shaft," as inserted.—M. EDWARDS, manager: Nov. 15.

THE "QUARTERLY REVIEW" AND HENRY CORT—ERRATA.—In last week's Journal, fourth paragraph from beginning, for *Carnarvon* read *Carnarvon*. Fourth paragraph from end, for 2000 read 210.

WEST TOLVADEN.—Will some one interested inform me when a meeting was last held, and when another may be expected? I hold some shares, and should much like to know how we are progressing.—B. A.

LADY BERTHA.—The notice in your City Article of the merits of Lady Bertha will have been read with great interest by those who are fortunate enough to be shareholders, but cannot be consulting to those who sold out at 10s. and 11s. a few weeks ago. It is not a fact that near upon 2000 shares were thus sold on your London market, and, at Tolvaden? The fluctuations in this very eccentric mine have become a proverb. Let the public enquire further as to the bona fides of this sudden rise.—verbum sap.—A VICTIM: Southampton.

ACADEMIC CHARCOAL IRON COMPANY.—"F. von S." (Hamburg).—The meeting to which our correspondent alludes has been delayed by unavoidable circumstances; but it will be held, we understand, on or about Dec. 1. The company, we believe, are continuing to receive large shipments of iron at Liverpool.

NOUVEAU MONDE MINING COMPANY.—This company, from want of capital, has suspended operations: 160,000 shares were issued, and not 16,000. Our correspondent, "H. M.," can obtain every information at the company's offices, Walbrook House, City.

WEST GROVES MINES (Yorkshire).—Any particulars respecting the mines and district will prove acceptable; but such conduct as that complained of ought to form subject of enquiry by a committee of shareholders, who should deal with the delinquent as he deserves.

COLONIAL MINING ASSOCIATIONS.—Your correspondent last week has made two mistakes in his description of the Dun Mountain Mining Company. He says the capital is 75,000; it is only 52,000. He says they have raised no ore; they have sold 20 tons at 16s. per ton, and have now about 4 tons of chromate of iron in England. They have obtained an Act of the Colonial Legislature for the construction of a railway from the shipping port to the mine, and have sent out the iron rails for its construction. The mine produces both copper and chromate of iron, and is as yet quite untried.—D. H.: Stock Exchange, Nov. 19.

WHEAL ENMA (Buckfastleigh).—It is pleasing to find the progress at this mine is more encouraging from day to day. The body of shareholders have every confidence in the management of Mr. Jehu Hitchins. Independent agents inspect from time to time the large shareholders; and it is very satisfactory to find that every suggestion made with a view to greater economy, or more vigorous development, has been carefully attended to by the agents of the mine. The increasing returns and improved prospects are sure to be generally satisfactory.—A SHAREHOLDER: London, Nov. 18.

WHEAL ENMA MANAGEMENT.—I have nothing to do with Mr. Ennor, or his remarks in your Journal last Saturday. I have to account to the committee and shareholders only, which I shall do at the proper time.—Jehu HITCHINS.

MANUFACTURE OF WIRE-ROPE.—"S. E." (Truro).—We are not aware that Messrs. Webster and Horsfall claimed any particular mode of manufacturing wire-rope. The patent was described in the Journal about four months since, and the invention consists, we believe, merely of the substitution of steel wire for iron wire.

ADVERTISING BROKERS.—I beg to confirm the statements made by your several correspondents on this head. I do trust the practices alluded to will be stopped, and that you will lend your powerful aid in doing so.—A BONA FIDE INVESTOR.

Mr. Ennor's letter on the "Beauty of Free and Open Mines" shall appear next week.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, NOVEMBER 20, 1858.

The BRITISH IRON TRADE, as we anticipated, forces itself on the more active consideration of the country. This fact as it presents itself is of more than ordinary importance, being, in our opinion, precurse of an improved order of things in our general mining sphere of labour, while it eminently establishes, in a still greater degree than ever, the vastness of our iron resources, and the superior excellence of our manufacture as compared with foreign produce.

To agitate any question touching so stable an element of our mineral wealth, is to attract public attention to the whole, and there can be little doubt, in such an event, of a favourable issue.

The continued restrictions on iron imports under the French tariff have given rise to estimates of peculiar interest in a commercial point of view, and were any further proof required of the universal value of free competition, those estimates would not fail to supply it. That foreign countries are beginning to appreciate the advantages of open markets, the reports from the several British embassies and legations, made by order of our Government, and now issued in the usual official form, constitute a very satisfactory evidence, and it is to be hoped our French neighbours will not obstinately adhere to a system of "protective duties," so calculated to contract their commerce, and impair their manufactures. Statistics show that a duty, ranging from 50 to 70 per cent., in favour of ironmasters and against consumers and manufacturers, is not calculated to secure the advantages sought for by the advocates of Protection.

In France it has deteriorated manufacture, decreased supply, and lowered quotations. The recurrence to the old scale of import duty, to the exclusion of British, Belgian, and other foreign iron, consequent on the non-renewal of the decree which expired on Oct. 17, instead of augmenting, lowered the price of iron, within a fortnight, from 300 frs. to 290, 280 frs.; forged iron falling from 350 frs. to 330 frs. within the same period, while the stock in bond and importations were at a lower point than any quoted for the three preceding years. It is curious to trace the working of this system, and not a little consolatory that we so largely in our iron and other trades experience the benefits of its opposite.

At the end of last September, a few days before the expiration of the imperial decree, when foreign iron became, *de facto*, totally excluded, the quantity of pig-iron in bond was only 9941 tons, against 13,356 tons in Sept., 1857, and against 13,709 tons in the corresponding month of 1856. The quantities entered were—Pig-iron 4800 tons, and bar-iron 1180 tons in last September, against 6662 tons pig-iron, and 1496 tons of bar in Sept., 1857; and against 10,396 tons of pig-iron and 3855 tons of bar-iron in the corresponding month of the former year. Taking the aggregate tonnage returned for the first nine months of the present year, it will be seen there were entered 48,324 tons pig-iron, and 8481 tons bar-iron, against 76,203 tons of pig-iron, and 17,634 tons bar-iron in the three quarters of the last year, against 34,906 tons of pig-iron, and 36,986 tons bar-iron in the corresponding periods of the preceding.

Again, we see the make of pig-iron in France diminished under protection: during a period ranging from 1847 to 1850-1, it fell from 600,000 tons to 400,000 tons, or a little more. In 1852, the trade revived to 500,000 tons; but the difference in our producing-powers under free trade, and that of France under protection, is signalled by the fact that, independent of our immense exports, we annually consume a quantity equal, on the average, to 160 lbs. per head of our whole population; while the home consumption of France only amounts to 36 lbs. per head.

A few of the statistics relating to the manufacture of French iron will not fail to interest our readers. In the Franche-Comte, 67 blast-furnaces give an annual produce of 94,700 tons of pig-iron made with charcoal: the cost price of the metal being about 18,773,000 frs., the quotation standing at 191 frs. 89c. per ton. This average cost as follows:—

Coal at 17 frs. 90c. per millier 107 frs. 67c.
Ore at 25 frs. 48c. per millier 61 80
General expenses 32 40c. = 191 87

It is obvious the quality of iron, and the locality of the works, influence the above quotations; however, the extreme limits are from 174 frs. to 200 frs. The selling price at the same time being no more than 160 frs. to 180 frs., and the average 172 frs., according to our currency 67. 17s. 6s. The circumstances of the trade are, therefore, in no wise enviable.

Somewhat about a third part of the French importation of pig-iron is supplied by Belgium, although its selling price is in advance of that of English pig. The following shows the figure at which it can be sold:—

Belgian forge pig, original price frs. 92
Freight to Paris 10
At the entrepot 103

Importation duty 48

Total 150 = £6

As to the Scotch pig-iron, its price varies from 51s. 6d. for No. 3, g.m.b. to 57s. for Gartsherrie, No. 1, the average being 53s. 3d.

Glasgow pig, average price per ton £2 13 2
Freight from Glasgow to Havre 0 15 5
Landing and incidental expenses 0 1 11

At the entrepot 3 5 7
Right of importation in a French vessel 1 18 5

Total per ton £5 3 0

The freightage increases very considerably the market quotations; to Marseilles it is seldom less than 17. 2s., thus raising the price to 57. 19s. 3d. If to Lyons, the freight of 12s. 9d. must be added, making the price 67. 12s. per ton. From Havre to Paris the freight is 10s. 4d. in the basin of Vilette, so that it appears English iron can be disposed of at about 57. 18s., while Belgian iron must fetch 67. per ton.

This state of affairs causes a panic among the ironmasters of the Franche-Comte. Six of the principal members of the trade are appointed a com-

It is admitted as sound logic that paradox is one of the best methods of proof, and in our observations we shall avail ourselves of this consideration. We first recommend the intending investor to ask himself, or his advisers, "Is the mine in a favourable locality, and have the lodes been ascertained to be productive?" This, though not the most important, is still a question of grave consideration; and often, sadly too often, has it been neglected. How many owing their losses, or even ruin, to what they term mining have overlooked this grand and necessary precaution, who pick up shares cheap, by advertisement or by persuasive sharedealers; but who, like picture amateurs picking up gems cheap, on experience and reflection find their "old masters" nothing but daubs, and vamped up rubbish. This is a true simile, and fairly represents the heedlessness with which valuable property

Yesterday, the ALTEN AND QUENANGEN MINING COMPANY held their first annual meeting since the amalgamation of the two associations. It will be seen, from the reports lately come to hand, that during the last few months a considerable improvement in the several workings has taken place, and that, on the whole, the prospects are more encouraging than they have been for the last few years. It is true that no profits have been declared, but still it will be seen that the operations have been conducted on a great style of economy, and if there has been an error committed it is to be attributed not to extravagance, but rather to an extreme penuriousness, which, although exercised with a good intention, may possibly have had a detrimental influence on the local prospects of the undertaking. This present year the company anticipate making a profit: this is grounded upon no fallacious estimates, but is based upon the produce already raised, and when the calculation was made the ore was then in the progress of conversion considerably fallen, and consequently a loss was incurred; the directors are sanguine that the price of the ore will rise, and that the conversion to copper. Unfortunately, when this arrived in England the price had of this company having always made it an invariable rule not to hold over their produce, but realise it at the current rate ruling the market. This

Another fatal accident occurred at this colliery on Monday last, which a boy, 11 years of age, named Henderson, was killed. He was a horse driver, and it appears had fallen off the shafts where he was riding.

and was so severely crushed by the tubs passing over him as to cause his death. He ought to have been in the first tub, instead of riding on the shafts.

THE IRON AND METAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT AT WOLVERHAMPTON.]

Nov. 18.—The present is a dull season for shipping, but, making allowance for this, the manufacturers of iron are tolerably well employed. Some are short of orders, whilst others are busy, and, on the whole, there seems a tolerable prospect for the winter quarter. The conviction that there will be an active demand in spring leads to the conclusion that better prices will then be realised for pig-iron. There is, therefore, an indisposition to enter into contracts for forward delivery at present prices. The advance of 2s. 6d. established at quarter-day is generally maintained, superior hot-blast mine pigs fetching 3l. 12s. 6d.; but there is a good deal sold 5s. below that, of only a moderate quality.

In the beginning of the week a good deal of anxiety was felt as to the course which the colliers would take. After going to work at the reduced rates, as observed last week, and getting the pits in working order, the men gave notice for the restoration of the former rate of wages in no less than 180 thick coal, and 136 thin coal pits. These notices expired on Saturday night, and on Monday a large meeting was held at Horsley Heath, at which it was stated that some five or six masters were giving the advance of 6d. instead of 1s. per day, to which at one or two meetings it had been resolved to limit the demands of the colliers. A resolution was passed to the effect that the colliers should not return to work unless the advance of 6d. per day was awarded, and also that those receiving this advance should devote it to assist in supporting the men who remained on strike. A. M. Miller, who has been appointed secretary to the Miners' Union in the district, addressed the meeting, urging various matters, including obtaining a Ten Hours' Bill, &c., as objects of united effort. Since this meeting the men have gradually gone in, and it is now stated that nearly all have returned to work. Doubtless when iron reaches a higher price the advance of the colliers' wages will be conceded. The long resistance of the men, however, has been a most serious loss to themselves, their employers, and the district at large.

Some colliers were brought up at Halesowen, on Tuesday, on the charge of leaving work without notice. They were induced, on the advice of the magistrates, to return to work. A meeting was held this evening at Oldbury respecting this matter, those who called it contending that as the proprietors of coal and iron works are magistrates, and decide these cases, the men are not justly treated; and they are to make enquiries as to the means by which a stipendiary magistrate may be appointed for that district.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

Nov. 18.—The position of the Iron Trade, on the whole, is more satisfactory, and the reports from the different districts confirm the belief that the trade will continue to improve. The works generally are fully employed, and prices well maintained. There is a good general demand for all descriptions of iron.

The Coal Trade is improving, and during the past few weeks the demand has materially increased. It is impossible to witness the continuance of the several strikes which now exist without feelings of regret. The men are entailing upon themselves great misery by their persistent determination not to return to work, but have the entire sympathy of all who are not immediately connected with the masters. Great meetings of the unemployed continue to be held in the different districts affected by the strikes.

At the Thryberg Coal Company's new pit, near Kilnburst, two men were killed by falling from the corve. Preparation had been made for blasting, and the fuse lighted, when the signal having been given, and not immediately attended to, one of the men stepped out to repeat it, lest they should be blown to atoms. The corve then began to ascend, and the man who had stepped out hung on to the side, which overbalanced the corve, and two out of the three men were killed. Verdict, "Accidental Death." On Friday the engine-house of Broadbalk Colliery, near Ashton, was discovered to be on fire; the damage was considerable. A verdict of manslaughter was returned against Ralph Knowles, at Rushy Park Mine, of the same colliery, in consequence of his drawer having been killed by a fall of roof, caused through neglect to prop his place securely.

There is much progress being made in the lead mining districts of Derbyshire in a quiet way, and we hear that most of the new lead mine enterprises are giving satisfaction to their promoters. The Stoney Way Company have sold about 500 tons of ore, got in sinking the shaft and driving the level. The Robin Hood Company, at Matlock, held their half-yearly meeting on Wednesday, but beyond the appointment of new directors and the payment of tradesmen's bills, nothing of any note transpired. There is an enquiry for North Derbyshire and Mill Dam shares, the former being more frequently asked for. A new company is about to be formed for working a mine at Tideswell, and a meeting will be held on Wednesday for that purpose.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

Nov. 18.—The news of the week is rather limited in extent, and few events of actual importance have occurred since we last wrote. The Iron Trade remains in much the same state, few fresh orders having been received. The demand for rails is pretty good, and for the Continent a good supply is regularly required. Pig-iron does not sell quite so freely at present.

For steam coal the enquiry seems to be improving, and some large vessels are now in the Cardiff Docks waiting for cargoes. One of them, the *Reide*, of Cardiff, is 4000 tons burthen, and was towed from London at an expense of 2500l.; it is intended to load her with 2000 tons of steam coal. This does not look as if any preference was felt generally for North Country coal.

We recently reported the occurrence of a fatal boiler explosion at the Penydarren Iron-works, near Merthyr, and stated that besides the man killed several others were more or less injured. An inquest has been held on the deceased, and Mr. Evans, the Government Inspector, gave it as his opinion that the explosion took place from a deficiency of water, or excessive pressure of steam. The steam-gauge was not in working order, but the plates were sufficiently thick. The jury returned a verdict of "Accidental Death," after the coroner had summed up the evidence in an able and lucid manner.

The recent failure of the large coal firm, Messrs. T. P. Price, of Newport, seems to have affected the affairs of the Monmouthshire Railway Company to an unpleasant extent. Messrs. Price were heavy freighters; and at the time they failed they owed the company about 30000l. This loss has had the effect of reducing the dividend from 5 to 3½ per cent.; but the directors at the half-yearly meeting, yesterday, intimated that a different course would in future be pursued with the freighters. They would be called upon to pay up on certain days, and security would be required from "doubtful" concerns. A shareholder, Alderman Latch, recommended that security should be required from all, but the Vice-Chairman said this would be totally unnecessary. The same gentleman stated that the Messrs. Price owed at one time 50000l., their tonnage being about 7000l. per month. The company hold no security whatever of the firm.

A shocking accident occurred a few days ago at Blaenau. A young man, aged 23 years, named John Jones, was employed at the Cwm Celyn Forge Mills as a baller. While in the act of throwing a heavy ball of molten metal between the rails, the tongs snapped in two, his foot slipped, and he was caught by the rolls. He must have been drawn between them but for the assistance rendered by his fellow-workmen; and even as it was one of his legs was crushed to atoms. Mr. Soper, the surgeon, performed amputation, but the unfortunate man died two days afterwards.

On Wednesday last the *Times* contained a letter from its Paris correspondent on the state of the Iron Trade in France, and on the effects of the regulations passed from time to time for the protection of the iron-masters. Speaking of the superiority of the English iron, the writer says:—

"It has been observed, on a former occasion, that large quantities of English rails were supplied to the Northern line, including 11,000 tons from the Tredgar Works, in Wales. Last month the three years' guarantee given by the makers to the railway company having expired, the whole line laid with the Tredgar rails was carefully inspected, and found, though subject to the heaviest traffic in France, to exhibit but little more than 1½ per cent. of faulty rails. The certificate given by M. Couche, engineer of the Ponts et Chaussées, who is entrusted with the inspection of the railway, states that:—The rails furnished by the company are of very good quality, giving no more than 1.59 per cent. of defective material (about) after three years' guarantee, of which at least two years and a-half have been in service in the principal line from Paris to Lille."

It follows, therefore, from this documentary evidence that English iron of good make is superior to any that the 'protected' French ironmasters can produce; and that Government either must be contented with an inferior native article for the naval armaments of the country, or must break through the protective laws which cripple the energies of the nation, crush enterprise, and sacrifice the interests and safety of the community, in order that a numerically insignificant fraction should be enriched.

A lecture has been delivered at the Bristol School of Mines on the "Chemistry of Iron," by Mr. Thomas Coomber, F.C.S. The lecturer chiefly addressed himself to the description of solutions of iron in the chemical reagents, and to methods for ascertaining the quantities of the constituents of minerals containing that substance. The students were advised to make standard solutions with the permanganate and bichromate of potash, and examine them with weighed quantities of pianoforte wire, instead of depending upon existing values given by the atomic weights of these substances. The history of the assay of iron by the dry way was then treated of; and matters relating to the treatment of the ore and fluxes in the crucible gone into. The lecturer concluded with a discussion of the various methods of separating and determining the amounts of the constituents of an ironstone.

The "authorised" contradiction of the report that the Admiralty had decided upon using North Country coal instead of that from Wales has somewhat relieved the apprehensions of owners here. They do not fear a fair trial; but they did the effects of a partial and prejudiced one.

RHYMNEY IRON COMPANY.

The twenty-second annual general meeting of shareholders was held on Wednesday, and we learn that a highly satisfactory report for the year was submitted. The customary dividend was declared, notwithstanding the disasters of the current year, and the meeting broke up in a way to indicate from the orders in hand for rails to India and other parts of the world, that with the new year an era of unexampled prosperity in the iron trade will set in. The following are extracts from the report:—

The profit for the year ending June 30, 1858, amounts to 37,737l. 1s. 4d., being 8150l. less than that of the previous year. Out of this sum, 25,427l. 12s. has been paid in dividends, and 12,309l. added to the balance of undivided profits. It will be seen by the accounts that this last item now stands at 60,196l., but it must be borne in mind that 10,000l. out of that sum has this year been appropriated in part payment of the mortgage, and a further sum of 25,000l. will have to be similarly applied; so that although as matter of account the 60,196l. appears in the balance sheet intact, 35,000l. will be no longer available for dividend. The accounts also show that on June 30 about 60,000l. was owing to the company for rails, delivered and in course of delivery, while the available funds were very small. The proprietors will at once perceive from this how necessary it has been to continue to reserve a considerable portion of the profits for working capital; which system, in the opinion of the directors, should not be discontinued, until the reserve, after payment of the mortgage, shall amount to not less than 50,000l.

The iron manufactured during the year has been 37,341 tons, against 41,512 tons in the preceding year, a decrease of 3685 tons, owing partly to scarcity of water and accidents, as mentioned in the report of November last, and partly to the peculiar nature of the orders requiring more time for execution. But while the quantity of iron made and the profit therefrom is less than in the year ending June, 1857, the result of the past year cannot be regarded as highly satisfactory, when it is remembered that the year ending June, 1858, comprised a period of commercial distress and difficulty almost unparalleled. The price of iron during nearly the whole of that time was unremunerative, and the profit that has resulted is mainly from orders taken before the depression.

The stock of ironstone is somewhat larger than in June, 1857, it having been considered advisable not to reduce the "get" while it could be worked at a comparatively low cost. The iron on the roads is about the same as last year, full allowance having been made for wear and tear.

The new railway to Cardiff was opened in March last, and is very advantageous to the company, both as regards facilities of conveyance and saving in cost. The 750 shares held by the company are now fully paid up.

The rental shows an increase of 257l. on the previous year, the outlay for repairs having been limited to as low a scale as possible.

The expenditure on new works during the year amounts to about 10,000l.; they comprise roads in connection with the railway, a pond or reservoir, the commencement of a forge on the Rhymer estate, a warehouse on the wharf at Cardiff, and part payment for the schools. The existing works have been kept in an efficient state, and the new openings for minerals gradually proceeded with.

COMPARATIVE HARDNESS OF METALS AND ALLOYS.

Some important experiments have recently been completed by Messrs. F. Crace-Calvert and R. Johnson, for the purpose of determining more accurately the comparative degree of hardness of bodies. Hitherto the calculation has been made by rubbing one body against another, that which scratches the other being admitted to be the harder of the two. To obtain greater precision, Messrs. Calvert and Johnson employed a machine on the principle of a lever, with the important modification, that the piece of metal to be experimented upon can be relieved from the pressure of the weight employed without removing the weight from the end of the longer arm of the lever. The machine consists of a lever with a counterpoise and a plate, on which the weights are gradually placed. The fulcrum bears on a square bar of iron, passing through supports. This bar is graduated, and has at its end a conical steel point, 7 millimetres or .275 of an inch long, 5 millimetres or .197 of an inch wide at the base, and 1½ millimetre or .049 of an inch at the point which bears upon the piece of metal to be experimented on, and this is supported on a solid piece of iron. The support, or point of resistance, is raised or lowered by a screw, and when this screw is turned, the whole weight on the lever is borne by the screw and a second support, midway between the fulcrum and the weight plate. By reversing the screw, the weight on the lever is re-established on the bar.

When they wished to determine the degree of hardness of a substance, they placed it on the solid iron, and rested the point upon it, and then gradually added weights on the end of the lever, until the steel point entered 3.5 millimetres or .128 of an inch during half an hour, and then read off the weight. A result was never accepted without two experiments at least being made, which corresponded so far as to present a difference of only a few pounds. The subjoined table gives the comparative hardness of the more common metals:—

Names of metals.	Weight employed.	Calculated cast iron=1000.
Staffordshire cold-blast cast-iron—grey, No. 3.	4800	1000
Steel	4600	958
Wrought-iron from the above-mentioned cast-iron.	4550	948
Platinum	1400	295
Copper, pure	1445	303
Aluminium	1300	271
Silver, pure	1000	208
Zinc ditto	880	183
Gold ditto	800	167
Calcium ditto	520	108
Bismuth ditto	250	52
Tin ditto	130	27
Lead ditto	75	16

This table shows the high degree of hardness of cast-iron as compared with that of all other metals, and although they found alloys which possessed an extraordinary degree of hardness, still none were equal to cast-iron. With reference to the alloys of copper and zinc, they give the following table. To obtain the last column, they multiplied the percentage quantity of each metal by its respective hardness, added the two results together, and divided by 100. The quotient is the theoretical hardness:—

Formulae of alloys and percentages.	Weight employed.	Obtained cast iron=1000.	Calculated cast iron=1000.
Zn Cu ₂ { Cu 82.95 } { Zn 17.05 }	2050	427.03	230.83
Zn Cu ₄ { Cu 79.56 } { Zn 20.44 }	2250	468.75	276.82
Zn Cu ₃ { Cu 75.32 } { Zn 24.68 }	2250	468.75	276.04
Zn Cu ₂ { Cu 66.06 } { Zn 33.94 }	2270	472.92	281.04
Zn Cu { Cu 49.32 } { Zn 50.68 }	2900	604.17	243.33
Cu Zn ₂ { Cu 32.74 } { Zn 67.26 }	Broke with 1500 lbs., without the point entering.		
Cu Zn ₃ { Cu 24.64 } { Zn 75.36 }	Broke with 1500 lbs., with an impression ¼ mm. deep.		
Cu Zn ₄ { Cu 19.37 } { Zn 80.63 }	Entered a little more than the above; broke with 200 lbs.		
Cu Zn ₅ { Cu 16.30 } { Zn 83.70 }	Entered 2 mm. with 1500 lbs.; broke with 1700 lbs.		

These results show that all the alloys containing an excess of copper are much harder than the metals composing them, and what is not less interesting, that the increased degree of hardness is due to the zinc, the softer metal of the two which compose these alloys. The quantity of this metal must, however, not exceed 50 per cent. of the alloy, or the alloy becomes so brittle that it breaks as the steel point penetrates. They believe that some of these alloys, with an excess of zinc, and which are not found in commerce, owing to their white appearance, deserve the attention of engineers. There is in this series an alloy to which they wish to draw especial attention—The alloy Cu Zn, composed of—Copper, 49.32 parts; zinc 50.68 parts=100 parts.

Although this alloy contains about 20 per cent. more zinc than any of the brasses of commerce, still it is, when carefully prepared, far richer in colour than the ordinary alloys of commerce. The only reason that they can give why it has not been introduced into the market is, that when the

amount of zinc employed exceeds 33 per cent. the brass produced becomes so white that the manufacturers have deemed it advisable not to exceed that proportion. If, however, they had increased the quantity to exactly 50.68 per cent., and mixed the metals well, they would have obtained an alloy as rich in colour as if it had contained 90 per cent. of copper, and of a hardness three times as great as that given by calculation. In order to enable engineers to form an opinion as to the value of this cheap alloy they give the degrees of hardness of several commercial brasses:—

Commercial brasses.	Weight employed.	Obtained.	Cast-iron=1000.
Large bearing { Tin 12.82 } { Zinc 8.13 }	2700	562	259
Mud Plugs { Copper 80 } { Tin 10 }	3600	730	261
Yellow brass { Copper 64 } { Zinc 36 }	2500	520	238
Pumps & pipes { Tin 8.0 } { Zinc 7.5 }	1650	343	207

* These alloys all contain tin.

The alloy Cu Zn possesses another remarkable property—the facility with which it is capable of crystallising in prisms half an inch in length, of extreme flexibility. There is no doubt that this alloy is a definite chemical compound, and not a mixture of metals, as alloys are generally considered to be. Their researches on the conductivity of heat by alloys, which they have recently presented to the Royal Society, leave no doubt that many alloys are definite chemical compounds.

Formulae of alloys and per centages.	Weight employed.	Obtained cast iron=1000.	Calculated cast iron=1000.
Cu Sn ₂ { Cu 9.73 } { Sn 90.27 }	400	83.33	51.67
Cu Sn ₄ { Cu 88.14 } { Sn 11.86 }	480	95.81	59.26
Cu Sn ₃ { Cu 15.21 } { Sn 84.79 }	500	104.17	68.78
Cu Sn ₂ { Cu 21.21 } { Sn 78.79 }	650	135.42	84.78
Cu Sn { Cu 34.38 } { Sn 65.62 }	At 700 lbs. the point entered one-half, and the alloy broke.		
Cu Sn { Cu 48.17 } { Sn 51.83 }	At 800 lbs. the alloy broke without the point entering.		
Sn Cu ₂ { Cu 61.79 } { Sn 38.21 }	At 800 lbs. the alloy broke into small pieces (blue alloy).		
Sn Cu ₃ { Cu 68.27 } { Sn 31.73 }	1300 lbs. divided the alloy into two pieces, without the point having entered 1 mm.		
Sn Cu ₄ { Cu 72.90 } { Sn 27.10 }	The same as the preceding.		
Sn Cu ₅ { Cu 84.32 } { Sn 15.68 }	4400	216.66	237.08
Sn Cu ₆ { Cu 88.97 } { Sn 11.03 }	3710	772.92	270.83
Sn Cu ₇ { Cu 91.49 } { Sn 8.51 }	3070	630.58	277.70
Sn Cu ₈ { Cu 93.17 } { Sn 6.83 }	2890	602.08	279.14

The results obtained from this series of alloys lead to several conclusions deserving notice. First, the marked softness of all the alloys containing an excess of tin; secondly, the extraordinary fact that an increased quantity of so malleable a metal as copper should so suddenly render the alloy brittle, for the alloy Cu Sn₂ is not brittle, whilst the alloy Cu Sn₃ is brittle. Therefore the addition of 14 per cent. of copper renders a bronze alloy brittle. This curious fact is observed in all the alloys with excess of copper, Sn Cu₂, Sn Cu₃, Sn Cu₄, Sn Cu₅, until one containing a great excess of copper is arrived at, the alloy Sn Cu₁₀, when the brittleness ceases; but, strange to say, this alloy, which contains four-fifths of its weight in copper, is notwithstanding nearly as hard as iron. This remarkable influence of copper in the bronze alloys is also visible in those composed of Sn Cu₁₀, containing 88.97 of copper; Sn Cu₂₀, 91.49 of copper; and Sn Cu₃₀, 93.17 of copper. Copper acquires such an increased degree of hardness by being alloyed with tin or zinc, that they thought it interesting to ascertain if alloys composed of these two metals would also have a greater degree of hardness than that indicated by theory; they accordingly had a series of alloys prepared in equivalent quantities, and these are the results arrived at:

Formulae of alloys and per centages of each.	Weight employed.	Obtained cast iron=1000.	Calculated cast iron=1000.
Zn Sn ₂ { Zn 21.65 } { Sn 78.35 }	300	61.50	69.83
Zn Sn { Zn 54.55 } { Sn 45.45 }	330	68.75	82.70
Sn Zn ₂ { Sn 47.49 } { Zn 52.51 }	400	83.33	110.00
Sn Zn ₃ { Sn 37.57 } { Zn 62.43 }	450	93.70	121.58
Sn Zn ₄ { Sn 31.14 } { Zn 68.86 }	505	103.29	131.22
Sn Zn ₅ { Sn 26.37 } { Zn 73.63 }	600	125.00	142.90
Sn Zn ₆ { Sn 19.32 } { Zn 80.68 }	530	120.83	158.33

These results show that these metals exert no action on each other, as the numbers indicating the degrees of hardness of their alloys are rather less than those required by theory. Their researches on the conductivity of heat by the three above series of alloys throw some light on the great difference which the alloys of bronze present as compared with those of tin and zinc; for the latter conduct heat as a mixture of metals would do, and not as the former series, which conduct heat as definite chemical compounds.

Messrs. Calvert and Johnson conclude by giving the degrees of hardness of two other series of alloys,—those composed of lead and antimony, and lead and tin. In the series of lead and tin it is found that tin also increases the hardness of lead, but not in the same degree as it does that of copper. It is likewise remarkable that the hardness of the alloys Pb Sn₂, which contains 53.18 per cent. of tin; Sn Pb₂, which contains 22.11 per cent. of tin; and Sn Pb₃, which contains but 12.43 per cent. of tin, is equal—the weight employed in each instance being 125 lbs.

NOTE.—For the benefit of our non-chemical readers, we may explain that Cu means copper, or copper; Sn stannum, tin; Zn zinc; Pb, plumbum, lead. The formula Cu Sn, means that one atom of copper is combined with five atoms of tin. Cu₂ always understood, unless Cu₃ or some other number is written.

LEGITIMATE MINING AS AN INVESTMENT.

BY JOHN ROBERT PIKE.

The principle of starting and conducting large enterprises by means of associated capital has been nowhere more generally adopted, or its benefits more extensively illustrated, than in our own country. It has enabled us to lead the van of civilisation over the habitable globe, and to concentrate within our sea-girt isles that multitude of tangibilities and influences which in the aggregate invest Great Britain with all the attributes of commercial sovereignty. By joint-stock capital our railways have been constructed, docks made, lines of telegraph laid down, and the bulk of our monetary business transacted; all working under one principle of law, and requiring the payment of an adequate capital as a primary and necessary condition. But before the Joint-Stock Companies Act was first mooted in our legislative halls, and long before there existed the slightest need for its various clauses, declaratory or restrictive, the mineral wealth of Cornwall was in the course of development under a system of law and equity which recognised the principle of mercantile association in its widest and most liberal interpretation. That the Cost-book System has been both convenient and salutary in its operation in days gone by, when the necessary accessions of extensive and successful trading were in a rudimentary condition, is a proposition which does not admit of doubt, but that, in view of the general advancement in the knowledge of business science, its capabilities are fairly and fully developed we must, however unwillingly, deny. Mines have hitherto, almost by general consent, been removed from the category of undertakings in which a paid-up capital is a necessary element.

It is asserted that the quantity of dead work to be accomplished before reaching the ore is most uncertain; that when machinery is required for the purposes of the adventure, its cost can be met by a call for a like amount; that the necessary materials can be paid for at short intervals, and the value of the labour disbursed monthly, thus economising the individual capital of the shareholders, and enabling them to exercise a more strict surveillance over their affairs than they would probably feel inclined to do where they certain that a sufficient sum of money was subscribed to carry on the concern, if necessary, for a lengthened period of time. Such arguments as these are speciously seductive, but we apprehend that, after a careful examination of the whole subject, any disinterested person would feel inclined to visit on the head of this system not only a large proportion of the ruinous losses which have been incurred, but also the present feeble status of Cornish mining in the public eye. Why mines should be placed in such an exceptional position we are unable to state, but we do not hesi-

THE GREAT SHIP COMPANY (LIMITED).

Capital £300,000, in 300,000 shares of £1 each.
Deposit, 2s. 6d. per share on application for ten shares and upwards. Less than ten shares must be fully paid up on application.

(Acting until the first ordinary meeting of shareholders.)

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(With power to add to their number.)

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ENGINEER—L. K. Brunel, Esq., C.E.
SOLICITORS—Messrs. Montague Leverton and Hawley, 12, St. Helen's-place, E.C.
BANKERS—Messrs. Glyn, Mills, and Co., 67, Lombard-street.

Messrs. George Burnard and Co., 69, Lombard-street.
Messrs. Field, Son, and Wood, 9, Warfield-court, Throgmorton-street.
Messrs. Price and Brown, 4, Change-alley, Cornhill.

SECRETARY—Mr. John Henry Yates.

The desire prevailing on all hands that the *Great Eastern* steamship should be set in motion, and a feeling that the national character for energy and perseverance would suffer in the estimation of the world, if the completion of so splendid a specimen of naval architecture and mechanical ingenuity were to be further deferred, have led to the proposal of forming a company for the purpose of purchasing, completing, and sending her to sea. Increased carrying power, with greatly accelerated speed, and ability to coal for an entire voyage, could only be efficiently secured by great size. To carry out this principle, which has now obtained universal assent among practical men, the *Great Eastern* has been constructed, and has cost to the present time about £240,000. To raise this sum, the Eastern Steam Navigation Company has exhausted the power of making calls on its shareholders, and has incurred a debt of about £30,000. The present proprietors are a comparatively small body (about 300 in number), who are not inclined as a company to increase their risk; and although a large and influential portion of them are willing to subscribe their fair quota towards finishing the ship, there are legal difficulties which prevent their doing so, unless the ship be sold, consequently the proprietors have determined upon taking that course.

To purchase the *Great Eastern* as she now lies, and with those contracts completed, which form part of the existing liability of the old company, to fit her in all respects for sea as a first-class passenger ship, and to provide working capital, £300,000 would be the utmost sum required, and this it is proposed to raise by the issue of £300,000 shares of £1 each in a company with limited liability—called the Great Ship Company (Limited). Calculating from this basis the cost per ton of which the *Great Eastern*, ready in all respects for sea, would come into the possession of the new company is less than that of a first-class sailing vessel, and not much more than one-fourth that of a first-class steamer; while in comparison with the latter, her working expenses will also be proportionably less, owing to her immense size, which enables her to carry double the proportionate tonnage at nearly double the velocity.

Her chances of success in other respects may be estimated by the fact that she will be able to carry her fuel for the longest voyage, avoiding the delay and expense of coaling at foreign ports, and still have proportionately more room for profitable cargo and a larger number of passengers than any existing steamer. She will be fitted with all the appliances this mechanical age has been able to devise for taking in her fuel and cargo, and for discharging the latter with the greatest rapidity, and will be supplied with comforts and conveniences unobtainable in a smaller vessel.

Her great length, while offering very little extra resistance to the water, admits of the combination of the screw and paddle for the purpose of propulsion, from which a rate of speed hitherto unexampled will be obtained; for when it is considered that every increase of size has always hitherto been attended with increase of speed, and of proportionate carrying power, there is little fear that the computations of science will in this case fall short of their usual accuracy.

With a high rate of speed, the freedom from disturbing motion her great length will give, and the enormous strength of her construction, the *Great Eastern* cannot fail to obtain the preference of travellers and emigrants, and secure the freight of goods requiring speedy delivery; although it is not necessary she should carry her full complement of either to arrive at an exceedingly profitable result upon the reduced capital of the new company.

But apart from the considerations of profit which properly belong to all mercantile operations, there are others which invest this successful speculation of this undertaking with something of national importance. It is hardly too much to say, that to no other country could such a creation have been possible, and certainly no other could it confer such advantages. With colonies and dependencies in every region where external aggression may have unexpectedly to be resisted, or internal commotion suppressed, the resources of the empire would be multiplied, and its power almost doubled, by the rapidity with which they could by her aid be concentrated for every emergency.

The progress made in negotiations for the purchase, and the confidence placed in the ship and in this company by the proprietors of the Eastern Steam Navigation Company (Limited), may be inferred from the annual resolutions unanimously passed at the special general meeting of their shareholders, held at the London Tavern, on Tuesday, the 20th of November, 1858, and from the fact that more than three-fourths of that body have agreed to become shareholders in this company, to the capital of which they have subscribed largely, viz:—

- 1.—That the Eastern Steam Navigation Company (Limited) be, and the same is hereby, dissolved, subject to the provisions of the Joint-Stock Companies Act, 1856-1857, and that the said company be wound-up voluntarily under the provisions of the same Act.
- 2.—That Henry Thomas Hope, Esq., of 116, Piccadilly; Edward Ladd Betts, Esq., of Preston Hall, near Maidstone; Samuel Beale, Esq., M.P., of Russell-square; and John Yates, Esq., of St. Pancras, Essex, be, and they are hereby appointed liquidators under the said Act, to wind-up the said company.
- 3.—That the said liquidators be authorised in the event of their selling the ship belonging to the said company, to a certain registered company called the Great Ship Company (Limited), to receive in compensation, or part compensation for such sale, shares in the Great Ship Company (Limited), for distribution amongst the shareholders in the said Eastern Steam Navigation Company (Limited), and to enter into any arrangement whereby the shareholders in the Eastern Steam Navigation Company (Limited), may in lieu of cash, or shares, or in addition thereto, participate in the profits of, or receive any other benefit from, the said Great Ship Company (Limited).

HENRY T. HOPE, Chairman.

An estimate of the first year's work of the *Great Eastern* has been prepared, and the result is such as to leave, after paying a dividend of 15 per cent., a large margin for contingencies; this calculation, which may be obtained at the offices of the company, is founded on statistics of existing traffic, and only takes credit for a minimum amount of cargo and passengers, without taking into account the traffic she would herself create, or the Government postal subsidies which her speed must command.

On application for ten shares and upwards, a deposit of 2s. 6d. per share will be required, and a further sum of 5s. on allotment; the remainder of the capital to be paid in three calls, at intervals of not less than two months.

On application for less than ten shares, the full amount of 11s. per share must be paid.

Forms of applications for shares may be obtained from the brokers, or at the offices of the company, as under.

Temporary offices, 79, Lombard-street, E.C., November, 1858.

OVERLAND ROUTE—WEEKLY COMMUNICATION BY

STEAM TO INDIA, &c., VIA EGYPT.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ADEN, CEYLON, MADRAS, CALCUTTA, the STRAITS, CHINA, and MANILA, by their steamers leaving Southampton on the 4th and 20th of every month; and for the MEDITERRANEAN, EGYPT, ADEN, and BOMBAY, by their packets leaving Southampton about the 11th and 27th of the month.

For further particulars, apply at the company's offices, No. 122, Leadenhall-street; and at Oriental-place, Southampton.

STEAM UNDER SIXTY DAYS ECLIPSED.

The following ships, sailing under the Black Ball flag, have beaten the undermentioned steamers of the Eagle line on the passage home from Melbourne:—

MARCO POLO Beat the ROYAL CHARTER eight days.
LIGHTNING Beat the GREAT BRITAIN ten days.
SHOOTING STAR Beat the ROYAL CHARTER ten days.

PASSAGE MONEY £14 AND UPWARDS.

BLACK BALL LINE BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS.

Appointed to sail from LIVERPOOL on the 5th of each month

FOR MELBOURNE.

Forwarding Passengers by Steam to various Ports in

AUSTRALIA AND TASMANIA.

Ship. Register. Borthen. Captain. Date.
OCEAN CHIEF 1092 3000 BYRNE 5th December.
LIGHTNING 2990 4500 BYRNE 5th January.
MARCO POLO 1625 3500 CLARKE 5th February.
COMMODORE PERRY 2243 5500 WEBB 5th March.
DONALD MCKAY 2594 5500 TORIN 5th April.

The above line is considered to be the LARGEST, the FINEST, and FASTEST MERCANTILE SHIPS in the WORLD, and have been built by the most celebrated builders of the day, including McKay, of Boston. They are commanded by men who have already rendered themselves famous, and their equipments and accommodations are unequalled by any line of ships afloat.

The Black Ball Line has had the distinguished honour of a visit from Her Majesty the Queen, who was most graciously pleased to say that she had no idea there were such magnificent ships in her merchant navy.

Freight and passage, apply to the owners, JAMES FAIRBANKS and Co., Liverpool; or to T. M. MACRAE and Co., 2, Moorgate-street, London, E.C.

PASSAGE MONEY £14 AND UPWARDS.

WHITE STAR LINE OF BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS.

SAILING BETWEEN

LIVERPOOL AND MELBOURNE, on the 20th and 27th of every month,

and forwarding Passengers by Steamers at through rates to

ALL PARTS OF AUSTRALIA.

Ship. Register. Borthen. Captain. Date.
BEECHWORTH 1325 4500 Dec. 21.
PRINCE OF THE SEAS 1427 4500 Jan. 20.
RED JACKET M. H. O'HALLORAN 2460 5000 —
WHITE STAR T. C. C. KERR 2360 5000 —
MERMAID J. WHITE 1220 4000 —

The splendid clipper *Beechworth* is the finest and handsomest packet in port, and will sail punctually at noon on the 21st December. She was built by Donald McKay, the celebrated builders of the *Lightning*, *Star Hawk*, *James Baines*, &c., and designed especially for the Liverpool-Australian trade. The *Beechworth* was especially selected to carry Her Majesty's troops to the Cape of Good Hope and India, and landed them all in good health. Her saloons are very handsome, upwards of 8 ft. in height, and furnished with every comfort and necessary for the voyage. The accommodations for all classes of passengers are of the most superior order.

The very magnificent and fast clipper, *Prince of the Seas*, will be the packet of the 20th January.

Passengers must embark, without fail, on the 20th December.

For freight or passage, apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLEY and Co., 63, Cornhill, London; or SETON, FRASER, and Co., 110, Fenchurch-street, London.

GARPEL HEMATITE COMPANY (LIMITED).

HEMATITE IRON ORE IS NOW BEING WORKED BY THIS COMPANY, AT THEIR HEMATITE MINE, near Sorn, Ayrshire, the QUALITY of which is EXCELLENT, as will be seen from the following analysis, by Professor Penny:—

Andersonian University, Glasgow, April 29, 1857.
Chemical Analysis of a specimen of Garpel hematite iron ore:—
Peroxide of iron 85.28 per cent.
Silica 4.40
Phosphates, &c. 0.12
100.00

Metallic iron, 66.7 per cent. This ore is of first-rate quality.

Signed, FREDERICK PENNY, Professor of Chemistry.

A FEW SHARES in this company FOR SALE. Application to be made to EDWARD SINCLAIR, mining engineer, 8, West Claremont-street, Edinburgh.

THE ASSOCIATION FOR THE PREVENTION OF STEAM

BOILER EXPLOSIONS, AND FOR EFFECTING ECONOMY IN THE RAISING AND USE OF STEAM.

PRESIDENT—WILLIAM FAIRBAIRN, Esq., C.E., F.R.S., &c., &c.

TO ENGINEERS.—WANTED, by this Association, an ACTIVE, INTELLIGENT, and WELL-EDUCATED ENGINEER, theoretically and practically acquainted with the properties of steam, and thoroughly conversant with the details of steam-engines and boilers, to act as chief inspector under the managing committee. Salary, £500 per annum, with railway expenses allowed.

Applications to be made to undersigned, specifying age and qualification, accompanied with testimonials or references, on or before the 11th day of December next.

By order, HENRY WHITWORTH, Sec.

13, Corporation-street, Manchester, November 16, 1858.

IMPORTANT MINING SPECULATION.

THE BRANDY BOTTLE, PROVIDENCE, AND EDGE RAKE MINES.

These long-celebrated rich lead mines, situated in the manor and liberty of Tideswell, in the Peak of Derbyshire, are now proposed to be put into 1200 shares, of £1 5s. per share, 5s. to be paid on the allotment of each share, and by further calls of 5s. per share, or in such future calls as may be agreed upon during the progress of the intended operations. The £1500 proposed to be realised from 1200 shares, at £1 5s. per share, will cover the purchase of all the very extensive possessions of the above mines, rights, ways, tools, machinery, and also the estimated cost of sinking a plumb shaft on the present workings.—Shares may be had on application to Mr. THOMAS EYRE, Castleton, Derbyshire; Mr. FRANCIS COCKER, agent, Eram, Derbyshire; or at a meeting to be held at the Bold Rodney Inn, Eram, Derbyshire, on the 26th inst.

N.B.—Some further particulars of these mines may be seen in a paragraph in another part of this Journal.

DEVON NEW COPPER MINING COMPANY (LIMITED).

DISTRICT OF ASHBURTON, DEVONSHIRE.

20,000 shares of £2 each.

The company incorporated, and the liability of shareholders limited, under the Joint-Stock Companies Acts.

BANKERS.

The London and Westminster Bank (Temple-bar branch, No. 217, Strand, London).

The company are now ready to receive applications for a limited number of the shares. The issue of shares to approved parties who may be willing promptly to take an interest in this enterprise, and make the earliest application, will be made at par.

For further information, inspection of the plans, sections, the former and recent reports of the mining engineers or agents, or other documents relating to the mines, application (either personally or by letter) may be made to the secretary, at the offices of the company, No. 16, Barge-yard Chambers, Bucklersbury, London.

THE CORNWALL GREAT CONSOLIDATED LEAD AND

COPPER MINING COMPANY (LIMITED).

In 12,000 shares of £2 each.

OFFICES.—8, NEW BROAD STREET, CITY.

Shares in the above company to the extent of 10,000 have been taken up by the directors and amongst their friends and connections, without advertisement. The remaining 2,000 shares are now offered to the public at par. The company was established last year, for the purpose of purchasing and working a group of mines—viz., the Latchley Consolidated, South Maria, Tamar Maria, and Tamar River setts—the four forming the western boundary of the Devon Great Consols Mine, the lodes of which are laid down by competent authorities as passing through this property. During the progress of the working at Latchley, the large influx of water in the 60 ft. level rendered the aid of a powerful steam-engine necessary; one of 150 horse power was purchased, erected, and is in full work. At the above-named 60 ft. level two lodes of fine copper ore are now being opened upon, which have been traced from the shallow levels, and found to increase in value as they descend. In the South West Maria a good lode has been discovered at 40 fms., which will soon be reached at a greater depth.

The company are in possession of most satisfactory reports of surveys, &c., copies of which may be had, with prospectus and forms of application for shares, at the office of the company, or from THOMAS SMITH, Esq., sen., stock broker, 1, Copthall Chambers, Bank, and Stock Exchange.

CHARLES PEARSON, Sec.

PROSPECTUS.

THE COCKLEY BECK COPPER MINING COMPANY

(LIMITED).

Completely registered.

Situated in the parish of Seathwaite, in the county of Lancaster, ten miles from the town of Broughton, and about three miles from the Coniston Copper Mines.

Capital £3000, in 10,000 shares at 6s. each. Deposit, 1s. per share.

DIRECTORS.

WILLIAM SLATER, Esq., Park, near Dalton.

JAMES EDDY, Esq., Dalton.

Mr. THOMAS WRIGHT KIRKBY, near Dalton.

Mr. BENJAMIN NICHOLAS MOSZELL, near Dalton.

Mr. WILLIAM PHILLIPS, Dalton.

BANKERS—Lancaster New Banking Company, Ulverston.

TREASURER—Mr. Robert Atkinson, Dalton.

SECRETARY—Mr. Christopher Godby, Dalton.

REGISTERED OFFICE.—DALTON.

For the effectual trial and working of the mine, a level has been driven 150 fms. under the outcrop of the lode. A second level has been commenced and driven about 150 fms. from the valley of Cockley Beck, to intersect the lode 20 fms. below the upper level, which is cut and driven on about 8 fms., and where some good stones of copper have been found.

The object of this company is to drive up the bottom level under the ore ground in the upper level, where £220 worth of rich copper ore was found in sinking the winze 6½ fms., and to sink that winze as low as the deep level, after which to cross-cut north and south of the same lode, to prove other branches cut in driving the cross-cut of the deep level.

The sett extends along the south side of the River Duddon, from Cockley Beck to the county stones, which crosses about three miles from the lode.

A lease of the mine for 21 years has been granted by the lord of the manor, the royalty being one-twentieth.

Tools and materials are now at the mine for use, which are valued in the sum of £25, and the same to be taken up in shares.

It is worthy of particular notice, after the expenditure over a considerable time, the bearing measures are nearly approached, and a period arrived at which fully justifies the most sanguine hopes of speedy and complete success.

It is estimated that £3000 will prove the mine, and gentlemen who have money to venture in mining may do well in laying it out in the Cockley Beck Mines.

ALT-Y-CRIB MINE.—This mine was worked in very early times,

as it is said that documents trace it back to the reign of Queen Elizabeth. It was worked for many years by a Flintshire company, who returned an immense quantity of ore; but in consequence of the death of some of the principal partners, it then fell into the hands of Sir Edward Walker and others, when the operations produced in eighteen months (1850-52), from above the adit, 270 tons of lead ore, for £3117.

Owing to dissensions among the shareholders of this company, the mine came into the possession of the late Welsh Pottery Company, who gave, in 1854, £10,000 in shares for it. They did little or nothing to develop the property, and by their injudicious and extravagant expenditure at all their mines they became bankrupt in 1857.

The sett is very extensive, being about one and a half mile long by three quarters of a mile wide, and is held on lease for 21 years from 1854, with a provision giving the power of renewal for another 21 years, the dues being 1-14th. It is connected with the port of Aberystwyth by the turnpike-road, the distance being only seven miles, and it is close to the town of Talyllyn, affording good lodging and provisions for the miners.

Near the shaft an immense quantity of ore was taken away for 70 fms. in length, and from the adit to surface 50 fms. in height. It is proposed to drive a cross-cut from this deep adit, to intersect the parallel lodes opposite the great course of ore, and which can be done in a short time, and at a small expense.

It is confidently expected that this will lead to very valuable discoveries, as parallel lodes generally make rich opposite each other, and as some fine lead ore is being raised from one of these lodes near the surface, by a party of tributers. In carrying out this object, the probabilities of success are therefore great.

A cross-cut north is also being driven by six tributers in the deep adit, as there are branches going off in that direction, and something good is expected to be met with there.

The lodes in Wales being very large, and generally split up in branches, require to be well cross-cut, the doing of which has been the making of some of the best concerns there; and at Alt-Y-Crib those in progress and advised may soon place the concern in a very important position.

An adit level can also be driven, which would give 100 fms. from surface on the main lode, or 60 fms. under the old workings, an important feature in the ultimate working of the mine.

About six tributers have been raising ore, and in two months have returned 7 tons, which have been sold at £14 6s. per ton, and another parcel is about to be completed. If more vigorous operations were carried on the returns would no doubt be very soon be increased. The tributers have been getting £10 per ton, they paying all expenses (including materials), so that there is a profit of about £1 per ton.

There is excellent machinery, plant, buildings, &c., on the mine, and the underground operations can be at once prosecuted. There is also plenty of water-power.

Alt-Y-Crib was one of the three mines put up to auction at the height of the panic in November last, when the whole sold for £3000, besides a further sum since paid for articles taken at a valuation. The present proprietors have formed a company for the other two mines, and offer to dispose of Alt-Y-Crib for one-third the whole sum given—viz., £1000, payable £500 down, and the rest at three and four months, and some of them take an interest in this company. The £1000 will be paid to the other company referred to (Cardigan Consols).

By the reports it will be seen that it is estimated that a small outlay will probably make Alt-Y-Crib a good mine. It is, therefore, proposed to form a company under the Limited Liability Act, in 1000 shares of £5 each, with a deposit of £1 per share.

A good many of these shares are already subscribed for, and applications, accompanied with a deposit of £1 per share, will be received by Mr. J. H. MURCHISON, 117, Bishopsgate-street Within, London, E.C. The shares will be allotted in the order they are applied for till the list is completed.

No further call will be required for at least three months, when it will not exceed 10s. per share, and that amount will be sufficient to intersect the first two parallel lodes, when it is confidently expected that valuable discoveries will be made.

When three-fourths of the shares are subscribed for a meeting will be held, to adopt Articles of Association, and to elect directors and officers.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

In the Cause of WATSON v. CHARLES AND OTHERS.

RE WHEEL ARTHUR MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to a DECREE made in the above-mentioned Cause, and dated the 16th day of October last, a PUBLIC AUCTION will be HELDEN at the Registrar's Office, Truro, on WEDNESDAY, 1st day of December next, at Twelve o'clock at noon, for SELLING—

10 (1228th) SHARES of the defendant James Charles.

1 (1228th) SHARE of the defendant William Johns; and

4 (1228th) SHARES of the defendant Charles Guerriero Manini.

Respectively of and in the said MINE.

For further information, application may be made to Messrs. HOPKINS and BUTLER, plaintiffs' solicitors, 3, Sun-court, Cornhill, London; or to Mr. STOKES, solicitor, Truro.

Dated Registrar's Office, Truro, November 17, 1858.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

In the Cause of TODD v. WILKINSON AND OTHERS.

RE SWANPOOL MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to a DECREE made in the above-mentioned Cause, and dated the 30th day of November last, a PUBLIC AUCTION will be HELDEN at the Registrar's Office, Truro, on WEDNESDAY, 1st day of December next, at Twelve o'clock at noon, for SELLING—

100 (120th) SHARES of the defendant James Wilkinson.

10 (120th) SHARES of the defendant John Jackson.

40 (120th) SHARES of the defendant Robert Muston.

10 (120th) SHARES of the defendant James Holmes Boyle; and

5 (120th) SHARES of the defendant Mary Jane Cameron.

Respectively of and in the said MINE.

For further information, application may be made to Messrs. HOBBS and HOCKES, plaintiffs' solicitors, Truro.—Dated Registrar's Office, Truro, November 17, 1858.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

In the Cause of PAINTER v. DOSSER AND OTHERS.

RE MILL POOL MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to a DECREE made in the above-mentioned Cause, and dated the 30th day of August last, a PUBLIC AUCTION will be HELDEN at the Registrar's Office, Truro, on WEDNESDAY, 1st day of December next, at Twelve o'clock at noon, for SELLING—

4 (1024th) SHARES of the defendant M. Batt; and

3 (1024th) SHARES of the defendant James Laing.

Respectively of and in the said MINE.

For further information, application may be made to Messrs. ROSCOE and DAV

East India House.

THE FINANCE HOME AND PUBLIC WORKS COMMITTEE
OF THE COUNCIL OF INDIA HEREBY GIVE NOTICE, that they will be ready, on or before Tuesday, the 30th inst., to receive PROPOSALS in writing, made up, from such persons as may be willing to SUPPLY STEEL, AND COPPER SHEETS, BOLTS, &c., and that the conditions of the said contracts (two in number) may be had on application at the secretariat office, where the proposals are to be left, not later than eleven o'clock in the forenoon of the said 30th day of November, 1858, after which hour no tender will be received.
J. COSMO MELVILLE.
November 16, 1858.

Metropolitan Board of Works.

MAIN DRAINAGE OF THE METROPOLIS.

NORTHERN HIGH LEVEL SEWER.
TO BUILDERS, CONTRACTORS, AND OTHERS.—THE METROPOLITAN BOARD OF WORKS HEREBY GIVE NOTICE, that they will meet at the Council Chamber, Guildhall, in the City of London, on Friday, the 17th day of December next, at Twelve o'clock at noon precisely, and will then be PREPARED TO OPEN TENDERS, by parties who may be willing to CONTRACT for the CONSTRUCTION OF MAIN BRICK SEWERS, 8 miles 4295 ft., or thereabouts, in length, and for the execution of other works in connection therewith, to extend from the River Lea to Mansfield-road, near Hampstead, and for the maintenance of such works in complete repair for twelve calendar months.

Plans, sections, and a specification of the works, together with forms of tender, may be inspected, and other particulars obtained, at the office of the Board, No. 1, Greek-street, Soho-square, between the hours of 9 A.M. and 4 P.M., until the 16th Dec. next. The engineer will attend at the office of the Board on the 18th inst., at Twelve o'clock at noon, to afford further explanations to parties desirous of tendering, and to make arrangements for taking out the quantities.

Tenders, addressed to the Metropolitan Board of Works, must be delivered at the office of the Board before Four o'clock on the 16th day of December next, and no tender will be received after that hour.

The Board do not bind themselves to accept the lowest or any tender, and the party whose tender shall be accepted will be required to provide two approved sureties for the due performance of the works.
E. H. WOOLRYCH, Clerk of the Board.
No. 1, Greek-street, Soho-square, November 16, 1858.

STEAM ENGINES FOR SALE.—TO BE DISPOSED OF.
A very superior HIGH-PRESSURE HORIZONTAL ENGINE, of 19 horse power, 14 in. cylinder, and length of stroke 2 ft. ONE of 24 horse power, 16 in. cylinder, and length of stroke 3 ft. TWO of 28 horse power, 17 in. cylinder, and length of stroke 3 ft. AND TWO of 38 horse power, 20 in. cylinder, and length of stroke 3 ft.—For further particulars, and terms, apply to Messrs. PAGE and CAMERON, land agents and surveyors, 41, Old Broad-street, London, E.C., and St. Alban's.

STEAM PUMPS, FOR LAND AND MARINE PURPOSES.
SINGLE or DOUBLE ACTING; sizes from 2½ to 12 in. diameter, and from 4 to 18 in. stroke; by JOHN CAMERON. Used for feeding boilers, raising water (for reservoirs, tanks, irrigation, &c.), turning power, or as a steam fire engine.
Works, Egerton-street, Hulme, Manchester.

FOR SALE, VERY CHEAP, a MARINE STEEPLE ENGINE
of 65 horse power, suitable for land purposes, such as winding coal, pumping, or driving a mill. Price, £150. AN ENGINE of 24 horse power and a ROLLING MILL connected therewith, for rolling merchant iron, with rolls, &c. Price for the whole £220.—Apply to J. W. JONES, Columbia-buildings, Liverpool.

PARTIES HAVING STEAM-ENGINES, BOILERS, MACHINERY, PLANT, &c., FOR SALE, CAN SECURE FULL PUBLICITY, without expense, by SENDING PARTICULARS to P. M. PARSONS, engineer and agent for the sale of engines, machinery, &c., for INSERTION in his REGISTER, which is published monthly, constantly advertised, and extensively circulated in this and foreign countries and the colonies. Particulars for the December list must arrive by the 25th inst. No charge for insertion; a commission only on sales effected.
9, Arthur-street West, London Bridge, E.C.

ALLOTT AND THELWALL, HULL FORGE, HULL, are prepared to supply RIVET, BAR, NUT, and ANGLE IRON, SHAFTINGS, FOUNDRIES, USES, &c., made entirely from scrap iron, on reasonable terms, and on the shortest notice. The superior quality of the Hull Forge iron is well known, and the land extensively used where quality is of importance.—Hull Forge, Nov. 8, 1858.

IMPROVED APPLICATION OF WATER-POWER.

TURBINES OR HORIZONTAL WATER-WHEELS.—MAC ADAM, BROTHERS, AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, propose to SUPPLY and ERECT these WHEELS on any height of fall, and for driving any kind of machinery. They have been engaged in making them for the last ten years, and have erected them in many parts of Ireland, and lately at the Laxey Lead Mines, Isle of Man, and at Eccleston Mills, near Barnard Castle. They give a much higher percentage of power than the best vertical water-wheels, are cheaply connected to other machinery, and on low falls are not affected by floods or back-water. Further particulars will be given on application.

THEODOLITES, LEVELS, CIRCUMFERENTERS, MATHEMATICAL DRAWING INSTRUMENTS, SCALES, RULES, TAPES, SQUARES, &c.—JOHN ARCHBUTT, 20, WESTMINSTER BRIDGE ROAD, LAMBETH, near Astley's Theatre, respectfully calls attention to his stock of the above articles, manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality. An illustrated price list forwarded free on application; 8 in. dumpy level, complete, six guineas; 10 in. ditto, eight guineas; 14 in. ditto, ten guineas; with compass, one guinea each extra; best 5 in. theodolite, divided on silver, eighteen guineas.

CORNISH CRUCIBLES.—JOHN JULEFF, CORNISH CRUCIBLE MAKER, FORE-STREET, REDRUTH, CORNWALL (late No. 5, Bakers-row). JEWELLERS, SILVERSMITHS, METALLURGISTS, AND ASSAYERS' CRUCIBLES OF ALL SIZES. BLACK LEAD POTS, COVERS, MUFFLES, CRUCIBLES, &c., OF EVERY DESCRIPTION, AND MADE TO ORDER.

THE LLANGOLLEN SLAB AND SLATE COMPANY (LIMITED) beg to call the attention of Merchants, Architects, Contractors, and Builders, to their present STOCK OF SUPERIOR SLATE SLABS (they have several on hand containing 60 and 70 superficial feet), THIN and THICK ROOFING SLATES (mill and ridge), CISTERNS, SINKS, MANGERS, SALTING TROUGHS, FLOWER BOXES, and ENAMELLED CHIMNEY-PIECES, CHIFFONIES, TABLE TOPS, and SLABS. Their enamelled articles are much appreciated, and are in great demand in all the principal towns in this country, Spain, Australia, and China. Lists of Prices and Books of Design may be had on application to the MANAGER, 4, Wharf, South Wharf-road, Paddington, W.

SLATE SLABS, &c.—THE CAMEL SLATE COMPANY, Walsbridge, Cornwall, are PREPARED TO EXECUTE extensive ORDERS in ROOFING, LARGE SLABS (up to 100 feet in a stone), WATER and MANURE TANKS, BATHS, CHIMNEY-PIECES, and every description of slate goods. Price lists may be had on application.

BRICKS.—Messrs. OATES and INGRAM inform brick makers that their PATENT MACHINE for making solid brick is now THOROUGHLY and EFFICIENTLY TESTED, and are prepared to OFFER the following counties to the trade, in districts, either by ROYALTY or PURCHASE:—Middlesex, Surrey, Sussex, Essex, Kent, Norfolk, Suffolk, Cambridge, Oxford, Gloucester, Bedford, Berks, Bucks, Huntingdon, Devon, Cornwall, Dorset, Wilts, Hants, and Isle of Wight.

With this PATENT MACHINE the ordinary surface clay requires no preparation whatever, whilst that of a rocky nature has merely to be passed through rollers in the usual way, and THENCE, WITHOUT ANY TEMPERING, INTO THE MACHINE, FROM WHICH THE BRICKS ARE REMOVED DIRECT TO THE KILN in a STATE READY FOR BURNING. The MACHINE is now making CRACKS OF THIRTY BRICKS PER MINUTE at the works of Messrs. KIRK and PARRY, Government contractors, Fort Eson, near Gosport; and also at the Patent Solid Brick Works of T. WELLS INGRAM, Oldbury, near Birmingham.

Application for orders to see the machine in operation to be made to Messrs. OATES and INGRAM, Bradford-street, Birmingham. Samples of clay may be sent and passed through the machine, and the bricks burnt, or a sample brick will be sent to any party wishing to see one.

MESSRS. MCNICOLL AND VERNON'S PATENT STEAM TRAVELLING CRANE.

This machine will be found invaluable at the GOODS DEPOTS OF RAILWAYS, in the ERECTION OF LARGE BUILDINGS, VIADUCTS, BRIDGES, &c., in IRON FOUNDRIES, STONEMASONS' YARDS, QUARRIES, SAW-MILLS, TIMBER YARDS, or in any place where the hoisting, piling, and conveying of heavy weights is necessary. ONE of them will do MORE WORK with two men than TWO ORDINARY TRAVELLING CRANES with five men each. Any ORDINARY TRAVELLING CRANE can be ALTERED TO THE PATENT PLAN.

The following are some of the parties who have used the cranes, viz.:—
The Hull Dock Company 1 crane.
Messrs. Joseph Whitworth and Co., Tool Makers, Manchester 1 "
Messrs. Joseph Dowson and Co., Saw-Mill Proprietors, Lambeth 1 "
John Jay, Esq., Contractor, London 1 "
Messrs. Peto, Bransley, and Betts, Contractors, London 6 "
Messrs. John McNeill and Co., Saw-Mill Proprietors, Liverpool 4 "
Applications for licenses and for estimates to be made to Mr. JOHN VERNON, Engineer and Iron Shipbuilder, Brunswick Dock, Liverpool.

Was published on November 1, price 6d. per copy, or 6s. annually.—No. 1 of THE MINING REVIEW, AND MONTHLY COMMERCIAL RECORD.

The chief object of this publication will be to furnish shareholders, capitalists, and the public with reliable information relating to Mining, Railway, and other Commercial Securities, together with statistics and general observations of utility to investors.

No. 1 will contain—
List of Dividends Paid by Cornish and Devon Mines during the past 12 years.
Weekly Review of Business Transacted in Cornwall during the month.
Daily Record of the Share Transactions in the best Dividend and Progressive Mines.
Leading Articles on Cornish and Devon Mining Enterprise and the Cost-book System.
Compendium, giving a detailed description of the Basset, South Frances, Old Toxus United, South Butler and West Penwith, Buller and Basset United, West Grenville, Beare, and North Downs Mines.
Monthly Commercial Record.
Prices of Railway Stock.
Sales of Copper and other ores, with a mass of valuable data and useful information.
Published at the offices, 4, Austin-friars, London, and to be had of all newsvendors.

UNITED STATES OF AMERICA.—DUFEY, BECK, and SAYLES, BOSTON, MASSACHUSETTS, BROKERS FOR THE PURCHASE AND SALE OF STATE, CITY, AND RAILROAD SECURITIES, MANUFACTURING, and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.
[Dufey, Beck, and Sayles refer to the Editor of the Mining Journal.]

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.
MIDLAND WORKS, BIRMINGHAM.
BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.
IN STOCK—FOR SALE OR HIRE.

THE RAILWAY CARRIAGE COMPANY,
OLDBURY, NEAR BIRMINGHAM.
MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.
NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.
LONDON OFFICES.—34, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS
RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

YORKSHIRE TYRE AND AXLE WORKS, ROTHERHAM.
LOCOMOTIVE TYRE BARS OF EVERY DESCRIPTION, FOR ENGINES, CARRIAGES, AND RAILWAY WAGON WHEELS.
STEEL IRON for springs, MERCHANT AND OTHER IRONS MANUFACTURED.
WILLIAM F. HOYLE, Proprietor.

THE PERMANENT WAY COMPANY GRANT LICENSES
for the USE of IMPORTANT PATENTED INVENTIONS (now adopted by numerous railways at home and abroad, to the extent of upwards of 10,000 miles), by the following patentees:—

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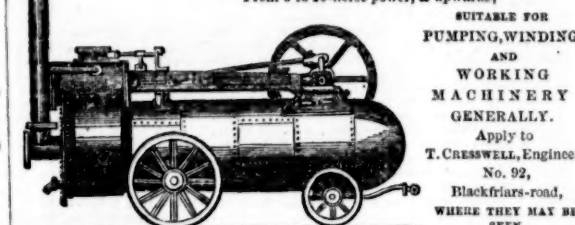
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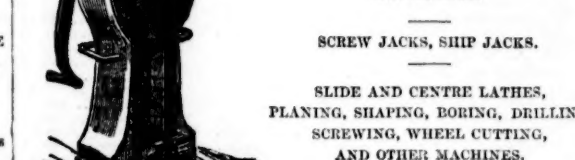
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230	Barnack (tin), copper, St. Just	0 10 0	60	6 1/2	0 0 6 1/2	0 6 1/2-Oct. 1885
4096	Calstock Consols (copper)	0 0 6	4 1/2	4 1/2	0 0 6	0 6-Dec. 1887
1000	Carn Brea (copper), tin, Illogan	0 0 6	67 1/2	60 6 1/2	243 10 0	0 2 0-Aug. 1885
200	Carn Brea (copper), tin, Illogan	0 0 6	67 1/2	60 6 1/2	243 10 0	0 2 0-Aug. 1885
2000	Colliam (copper), Lamerion	0 0 6	12 1/2	12 1/2	0 0 6	0 6-Dec. 1887
12000	Copper Miners of England	0 0 6	28	7 1/2	7 1/2	0 6-Dec. 1887
20000	Ditto ditto (stock)	0 0 6	28	7 1/2	7 1/2	0 6-Dec. 1887
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128	Croft (copper), Devon	0 0 6	28	7 1/2	7 1/2	0 6-Dec. 1887
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1024	Devon Consols (cop.), Tavistock [S.E.]	0 0 6	460	632 0 0	0 0 6	0 6-Dec. 1887
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240	East Daren (lead), Carnagish	0 0 6	100	100	0 0 6	0 6-Dec. 1887
2048	East Falmouth (copper), Gwennap	0 0 6	216	216	0 0 6	0 6-Dec. 1887
128	East Pool (tin), copper, Pool, Illogan	0 0 6	175	175	0 0 6	0 6-Dec. 1887
5709	Exmouth (silver-lead), Christow	0 14 0	8	8	0 14 0	0 8-April, 1885
1400	Eyan Mining Co. (lead), Derbyshire	0 0 6	38	38	0 0 6	0 6-Dec. 1887
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6000	Great South Tolsa [S.E.] Redruth	0 10 0	14 1/2	14 1/2	0 10 0	0 6-Dec. 1887
1024	Herodford (lead), near Liskeard	0 10 0	6 1/2	6 1/2	0 10 0	0 6-Dec. 1887
2560	Isle of Man, Limited (lead)	0 25 0	0	0	0 25 0	0 6-Dec. 1887
160	Levant (copper), tin, St. Just	0 10 0	102 1/2	102 1/2	0 10 0	0 6-Dec. 1887
400	Lisburn (lead), Carnagish, Wales	0 15 0	100	100	0 15 0	0 6-Dec. 1887
5000	Menap Hills (lead), Somerset	0 15 0	134	134	0 15 0	0 6-Dec. 1887
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200	Phoenix (cop., tin), Liskeard	0 0 6	420	415 420	0 0 6	0 6-Dec. 1887
1000	Pobber (tin), St. Agnes (Preferential)	0 0 6	5	5	0 0 6	0 6-Dec. 1887
1772	ditto ditto (Old and ditto)	0 0 6	5	5	0 0 6	0 6-Dec. 1887
500	Providence Mines (tin), Uuy Lelaunt	0 20 12	63	60 62 1/2	0 20 12	0 6-Dec. 1887
2500	Rhosydwyl and Bachelidon (lead)	0 11 5 0	12	12	0 11 5 0	0 6-Dec. 1887
150 10	Ruadon Colliery Company, Limited	0 0 6	3	3	0 0 6	0 6-Dec. 1887
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256	South Gama (cop., tin), St. Cleer [S.E.]	0 10 0	400	400 410	0 10 0	0 6-Dec. 1887
412	South Tolsa (cop., tin), Cornwall	0 0 6	50	50	0 0 6	0 6-Dec. 1887
496	South West France, Illogan [S.E.]	0 18 0	250	250 240	0 18 0	0 6-Dec. 1887
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470	St. Ives Consols (tin), St. Ives	0 10 0	33	30 32 1/2	0 10 0	0 6-Dec. 1887
6000	Thimor (cop., tin), Pool, Illogan [S.E.]	0 0 6	33 1/2	33 1/2	0 0 6	0 6-Dec. 1887
20000	Vale of Fowy (lead), Carnarvon [S.E.]	0 12 6	135 6 1/2	135 6 1/2	0 12 6	0 6-Dec. 1887
512	Wendron Consols (tin), Wendron	0 23 7 8	42 1/2	42 1/2	0 23 7 8	0 6-Dec. 1887
6000	West Basset (copper), Illogan [S.E.]	0 10 0	24	22 23	0 10 0	0 6-Dec. 1887
256	West Canford (cop., tin), St. Cleer [S.E.]	0 10 0	120	115 120	0 10 0	0 6-Dec. 1887
6000	West France (tin and copper)	0 0 6	11 1/2	11 1/2	0 0 6	0 6-Dec. 1887
400	West West Consols (cop., tin), Camborne	0 38 10 0	310	290 300	0 38 10 0	0 6-Dec. 1887
240	Wheel Bal (tin), St. Just	0 15 0	18	18	0 15 0	0 6-Dec. 1887
512	Wheel Basset (copper), Illogan [S.E.]	0 5 6	215	205 215	0 5 6	0 6-Dec. 1887
256	Wheel Buller (cop., tin), Redruth [S.E.]	0 5 6	100	175 180	0 5 6	0 6-Dec. 1887
4096	Wheel Edward (cop., tin), Calstock [S.E.]	0 5 0	10	34 35 34	0 5 0	0 6-Dec. 1887
128	Wheel Friendship (copper), Devon	0 0 6	90	90	0 0 6	0 6-Dec. 1887
418	Wheel Margaret (tin), Uuy Lelaunt	0 15 0	65	62 1/2 65	0 15 0	0 6-Dec. 1887
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	0 0 6	46	46 46 1/2	0 0 6	0 6-Dec. 1887
80	Wh. Mary Ann (id.), Menheniot [S.E.]	0 0 6	46	46 46 1/2	0 0 6	0 6-Dec. 1887
1010	Wh. Mary Ann (id.), Menheniot [S.E.]	0 4 10 0	26	26 26 1/2	0 4 10 0	0 6-Dec. 1887
4096	Wh. Mary Ann (id.), Menheniot [S.E.]	0 14 0	2	1 1/2	0 14 0	0 6-Dec. 1887
5000	Wicklow (copper), Wicklow	0 0 6	39	39	0 0 6	0 6-Dec. 1887

MINES WITH DIVIDENDS IN ABEYANCE.

1024	Ballewiden (tin), St. Just	0 11 5 0	5	5	0 11 5 0	0 6-Dec. 1887
1200	Brightside & Froggatt Grove, Derbyshire	0 0 6	5 1/2	5 1/2	0 0 6	0 6-Dec. 1887
100	Brynmor Hall (lead), Flintshire	0 25 0 0	50	50	0 25 0 0	0 6-Dec. 1887
1000	Brynmor, Llanidloes, Montgomeryshire	0 7 15 0	6 1/2	7 7 1/2	0 7 15 0	0 6-Dec. 1887
390	Bullock Consols (tin), Porman	0 2 6	5 1/2	5 1/2	0 2 6	0 6-Dec. 1887
6000	Bwch (silver-lead), Carnagish	0 3 6	1 1/2	1 1/2	0 3 6	0 6-Dec. 1887
2048	Carynarth (tin), St. Just	0 10 0	4	4	0 10 0	0 6-Dec. 1887
256	Centurion (copper), tin, Cornwall	0 20 0 0	4	4	0 20 0 0	0 6-Dec. 1887
30000	Craven Moor, Limited (lead), Yorkshire	0 10 0	3	45 55	0 10 0	0 6-Dec. 1887
230	Dorset Mines (id.-lead), Durham	0 300 0 0	150	150	0 300 0 0	0 6-Dec. 1887
672	Dun Don (tin), Gwilt	0 35 0 0	11	11	0 35 0 0	0 6-Dec. 1887
12800	Durk Walls (tin), copper, Calstock	0 2 10 0	208	7 1/2	0 2 10 0	0 6-Dec. 1887
1024	East Wheel Margaret (tin), copper	0 7 17 6	2	2	0 7 17 6	0 6-Dec. 1887
4910	Fowey Consols (copper), Tywardreath	0 4 0 0	3 1/2	3 1/2	0 4 0 0	0 6-Dec. 1887
4448	General Mining Co. for Ireland (cop., id.)	0 4 0 0	14 1/2	14 1/2	0 4 0 0	0 6-Dec. 1887
2000	Goginan (silver-lead), Carnagish	0 12 6	6 1/2	6 1/2	0 12 6	0 6-Dec. 1887
1024	Gosman (tin), St. Cleer	0 14 0	8	8	0 14 0	0 6-Dec. 1887
20000	Gr. Wh. Vor (tin), Helston [S.E.]	0 7 1 1	1	1 1/2	0 7 1 1	0 6-Dec. 1887
119	Great Work (tin), Gwennap	0 100 0 0	110	110	0 100 0 0	0 6-Dec. 1887
6000	Hingston Down Cons. (cop.), Calstock	0 3 13 6	3	2 1/2	0 3 13 6	0 6-Dec. 1887
2000	Holyford (copper), near Tipperary	0 11 0 0	8 1/2	8 1/2	0 11 0 0	0 6-Dec. 1887
20	Lacey Mining Company, Isle of Man	0 100 0 0	1000	1000	0 100 0 0	0 6-Dec. 1887
5000	Lewis Mines (tin), copper, St. Erth	0 6 9 11	2 1/2	2 1/2	0 6 9 11	0 6-Dec. 1887
6000	Marke Valley (copper), Carnon	0 4 10 0	2 1/2	2 1/2	0 4 10 0	0 6-Dec. 1887
5000	Meryn (lead), Flint	0 2 6	6 1/2	6 1/2	0 2 6	0 6-Dec. 1887
5000	Naute (copper), tin, Cornwall	0 2 6	6 1/2	6 1/2	0 2 6	0 6-Dec. 1887
200	North Pool (copper), tin, Pool	0 40 10 0	10	10	0 40 10 0	0 6-Dec. 1887
700	North Pool (copper), tin, Pool	0 40 10 0	10	10	0 40 10 0	0 6-Dec. 1887
512	Rosewater United (cop., tin), Gwennap	0 15 0 0	32 1/2	30 32 1/2	0 15 0 0	0 6-Dec. 1887
12000	Sordridge Cons. (cop.), Whitchurch [S.E.]	0 0 6	16 1/2	16 1/2	0 0 6	0 6-Dec. 1887
128	South Crimins (copper), St. Austell	0 19 0 0	285	285	0 19 0 0	0 6-Dec. 1887
794	Spearan Cons. (tin), St. Just, Cornwall	0 3 18 0	24	24	0 3 18 0	0 6-Dec. 1887
290	Spearan Moor (copper), St. Just	0 23 7 8	15	15	0 23 7 8	0 6-Dec. 1887
570	St. Austyn and Gwilt (cop., tin), Breage	0 6 8 4	2 1/2	2 1/2	0 6 8 4	0 6-Dec. 1887
6000	St. Austyn and Gwilt (cop., tin), Breage	0 6 8 4	2 1/2	2 1/2	0 6 8 4	0 6-Dec. 1887
272	Trevelyan Consols (tin), St. Ives	0 11 10 0	9 1/2	9 1/2	0 11 10 0	0 6-Dec. 1887
120	Trevelyan (cop., tin), Gwennap, Cornwall	0 15 0 0	10	10	0 15 0 0	0 6-Dec. 1887
4096	Trevelyan (id.-lead), Menheniot, Cornwall	0 2 18 0	3 1/2	3 1/2	0 2 18 0	0 6-Dec. 1887
100	Trumpet Consols (tin), near Helston	0 95 0 0	11	11	0 95 0 0	0 6-Dec. 1887
400	United Mines (copper), Gwennap [S.E.]	0 40 0 0	85	85	0 40 0 0	0 6-Dec. 1887
512	West Damsel (copper), Gwennap	0 12 17 0	115	115	0 12 17 0	0 6-Dec. 1887
1224	West Providence (tin), St. Erth	0 2 11 7 1/2	14 1/2	14 1/2	0 2 11 7 1/2	0 6-Dec. 1887
1224	Wheel Arthur (copper), Calstock	0 2 3 0	188	168 188	0 2 3 0	0 6-Dec. 1887
1024	Wheel Clifford (copper), Gwennap	0 3 4 0	310	310	0 3 4 0	0 6-Dec. 1887
512	Wheel Jane (silver-lead), Kew	0 3 10 0	25	25	0 3 10 0	0 6-Dec. 1887
5000	Wheel Kitty (tin), St. Agnes	0 4 10 0	34 1/2	34 1/2	0 4 10 0	0 6-Dec. 1887
1024	Wheel Kitty (tin), Uuy Lelaunt [S.E.]	0 7 2 9	9 1/2	8 1/2	0 7 2 9	0 6-Dec. 1887
400	Wheel Mary (tin), Wendron	0 33 0 0	7	7	0 33 0 0	0 6-Dec. 1887
190	Wheel Mary (tin), Uuy Lelaunt	0 39 10 0	25	25	0 39 10 0	0 6-Dec. 1887
256	Wheel West (tin), copper, Camborne	0 107 0 0	130	130	0 107 0 0	0 6-Dec. 1887
1024	Wheel Trevelyan (tin), Gwennap	0 2 6	2 1/2	2 1/2	0 2 6	0 6-Dec. 1887

* Dividends paid every two months. † Dividends paid every three months.

FOREIGN MINES.

2404	Burra Burra (cop.), South Australia	0 0 6	142	200 0 0	0 0 6	0 6-Dec. 1887
12000	Cobre Cop. (cop.), Cuba [S.E.]	0 0 6	87	86 12 0	0 0 6	0 6-Dec. 1887
10000	Copago Mining Company, Chile [S.E.]	0 0 6	13	11 13	0 0 6	0 6-Dec. 1887
2000	English and Australian	0 0 6	2 1/2	2 1/2	0 0 6	0 6-Dec. 1887
2500	Gen. Mining Assoc., Nova Scotia [S.E.]	0 15 0 0	20	11 20	0 15 0 0	0 6-Dec. 1887
15000	Llaneros (id.), Potosi, Bolivia [S.E.]	0 0 6	9	8 1/2	0 0 6	0 6-Dec. 1887
10000	Llaneros (id.), Potosi, Bolivia [S.E.]	0 11 5 0	1	1 1/2	0 11 5 0	0 6-Dec. 1887
1024	Marquette and New Granada [S.E.]	0 0 6	1	1 1/2	0 0 6	0 6-Dec. 1887

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten & Quangen (cop.), Norway	0 16 10 0	3	4 5 0	0 16 10 0	0 6-Dec. 1887
88676	North British Australasian [S.E.]	0 1 0 0	3 1/2	0 3 11 0	0 1 0 0	0 6-Dec. 1887
10000	Pontgibaud (id.-lead), France [S.E.]	0 29 0 0	5 1/2	1 0 0	0 29 0 0	0 6-Dec. 1887
7000	Royal Santiago (copper), Cuba [S.E.]	0 16 15 0	1 1/2	33 0 0	0 16 15 0	0 6-Dec. 1887
11000	St. John del Rey (id.), Brazil	0 15 0 0	9	33 7 6	0 15 0 0	0 6-Dec. 1887
43174	Unit. Mexican (id.), Mexico [S.E.]	0 28 0 0	3 1/2	1 16 6	0 28 0 0	0 6-Dec. 1887

NON-DIVIDEND FOREIGN MINES.

20000	Acadian Charcoal Iron, Nova Scotia [L.]	8 10 0	6	6	Nov. 1858
20000	Australian (copper) [S. E.]	7 5 0	3	3 1/2	
75000	Bon Accord, South Australia (copper) [L.]	0 10 0	3	3	
10000	Brazilian Imperial	27 5 0	13	13 1/2	
10000	Brazilian Land and Mining, Alotepaque [L.]	5 0 0	2 1/2	2 1/2	
6000	Central American (silver) [L.]	7 0 0	2 1/2	2 1/2	April, 1858
50000	Clarendon Consols (copper), Jamaica [S.E.]	0 12 6	48	48 1/2	Oct. 1857
35040	Coloene Mining Company (lead), Rhenish Prussia	1 4 0	1 1/2	1 1/2	Jan. 1850
10000	Coloene Street (copper), New Zealand [L.]	10 0 0	13	13	
75000	Dun Mountain (copper), New Zealand [L.]	10 0 0	13	13 3/4	
15000	East Indian Coal, Calcutta [L.]	10 0 0	10	10	
20000	Elterslie and Barlowie, Jamaica	0 16 0	1 1/2	1 1/2	
2000	English Ridge, Newfoundland [L.]	0 10 0	5	5	
25000	Fortuna (lead), Spain	2 0 0	2 1/2	13 2	July, 1850
10000	Great Barrier Land, Mining, &c., New Zealand	1 10 0	1 1/2	1 1/2	
2500	Kinzigthal Mining Association, Germ.	4 0 0	1	1	
25000	Levant Mineral [L.]	10 0 0	1	1	
10000	Mount Carbon (coal), Virginia	1 0 0	3/4	3/4	
50000	New Granada (S. E.)	1 0 0	3/4	3/4	
10000	New Grand Duchy of Baden	0 12 0	3 1/2	3 1/2	Nov. 1858
50000	Newfoundland Mining Association [L.]	0 2 0	3 1/2	3 1/2	
5000	New Holtzappel Mining [L.]	1 0 0	1	1	
60000	North Rhine Copper of South Australia, Limited [S.E.]	0 10 0	3	3 1/2	
100000	Nouveau Monde (copper) [S.E.]	1 0 0	3	3	
65000	Piedmontese (copper) [L.]	1 0 0	—	—	
45000	Port Phillip (gold)	1 0 0	3	3 1/2	
50000	Quartz Reclation [L.]	1 0 0	3	3 1/2	
6000	Scottie and Canada (lead)	2 0 0	—	—	Nov. 1858
45000	Schaffhauser (copper) [L.]	1 0 0	—	—	
7820	Ditto, Frederick, 10 per cent.	1 0 0	—	—	
2000	Turk's Head (copper) [L.]	1 10 0	5	5	
1000	Western Africa Malachite	95 0 0	100	100	Aug. 1857
35425	Whiml Jamaica (copper)	0 17 0	18	18	
75000	Wilberg (silver-lead, copper)	2 0 0	—	—	
100000	Worthing (copper), South Australia [L.]	0 14 0	63	63 1/2	June, 1858